Tempe

CITY OF TEMPE
BOARD OF ADJUSTMENT

Meeting Date: 04/27/2016
Agenda Item: 2

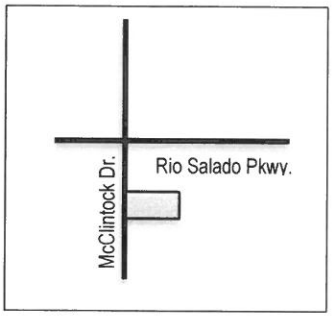
ACTION: Request for reconsideration of the Board of Adjustment decision on February 24, 2016 to deny the appeal and uphold the Zoning Administrator's decision to deny the proposed Medical Marijuana Dispensary location at 111 South McClintock Drive for HEALING HEALTHCARE 3 INC. (d.b.a. Swell Farmacy) (PL150524). The applicant is of Mark Fuller, Gallagher and Kennedy.

FISCAL IMPACT: There is no fiscal impact on City funds.

RECOMMENDATION: N/A

BACKGROUND INFORMATION: HEALING HEALTHCARE 3 INC. (d.b.a. Swell Farmacy) (PL150524) filed an administrative review application for a zoning clearance request on December 22, 2015 for a medical marijuana dispensary. After review of the request a determination was made on December 31, 2015, that the subject property did not comply with the separation requirements from a residential zoning district (500 feet). On February 24, 2016, the Board of Adjustment denied an appeal request, thus upholding the Zoning Administrator's decision to the deny the application based on the adopted separation requirements. The appellant for that case, Gallagher and Kennedy, have filed a motion for reconsideration. The request includes the following:

1. Reconsideration of the Board of Adjustment's decision to deny the appeal and uphold the Zoning Administrator's decision to deny a Medical Marijuana Dispensary located at 111 South McClintock Drive.



Property Owner	111 McClintock, LLC
Appellant	Mark Fuller, Gallagher and Kennedy
Current Zoning District	GID, General Industrial District
Gross/Net site area	19,200 sf.

ATTACHMENTS: Reconsideration Filing, Original Report/Supporting Attachments

STAFF CONTACT(S): Ryan Levesque, Deputy Community Development Director (480) 858-2393

Department Director: Dave Nakagawara, Community Development Director
Legal review by: N/A
Prepared by: Ryan Levesque, Deputy Community Development Director

COMMENTS:

A motion for reconsideration has been filed by the original appellant for the Healing Healthcare 3, Inc. application. Pursuant to Section 6-703, the motion for reconsideration must be filed within 14 calendar days from the decision and address the factors set forth in Section 6-702. Any decision concerning the motion for reconsideration must make the determination that BOTH delineated factors must be met. Section 6-702 reads:

Section 6-702 Reconsideration as Extraordinary Remedy.

Reconsideration of a decision is available only as an extraordinary remedy upon a determination by the decision-making body that the criteria in subsections A and B are met:

A. **Mistake.** The party requesting reconsideration has sufficiently alleged in writing that a mistake of law or fact occurred; and the alleged mistake, if found to have occurred, was a substantial factor in the decision; and

B. **Hardship or Delay.** Reconsideration is appropriate to avoid delay or hardship that may be caused by an appeal.

The Board of Adjustment must determine that BOTH Subsections A. (Mistake) and B. (Hardship or Delay) have been met to grant the motion for reconsideration.

If the Board rules against the motion for reconsideration, denying the request, then no further action is needed on the matter and the prior decisions remain in effect.

If the Board rules in favor of the motion for reconsideration, approving the request, then the following would need to occur. The Board would schedule and notify the parties of a new public hearing on the merits of the issues raised in the motion for reconsideration. The next available hearing date would be at least 30 days from the motion.

A copy of the applicant's motion for reconsideration filing is included, along with the original staff summary report and appeal application attachments.

Tempe

SUPPORTING ATTACHMENTS
for
HEALING HEALTHCARE 3 INC.
(PL150524)

ATTACHMENTS:

1-7. Tempe Medical Marijuana Ordinance (Ordinance No. 2011.01) legislative findings

8. Excerpt from Code, Part 2, Chapter 1, Zoning Districts

9. Previous approved locations for Medical Marijuana

10. Existing/Potential locations for Medical Marijuana

11. Healing Healthcare 3 - Location Map

12. Healing Healthcare 3 – Aerial Map

13. Zoning Administrator's decision letter for 111 S. McClintock Dr.

14-67. Appellant's Justification/Explanation

G|K
Gallagher&Kennedy

Jeffrey D. Gross
Attorney
Certified Real Estate Law Specialist
Direct: (602) 530-8390
E-mail: jeff.gross@gknet.com

March 9, 2016

VIA HAND DELIVERY and E-MAIL (ryan.levesque@tempe.gov)

City of Tempe
Board of Adjustment
c/o Ryan Levesque
31 East Fifth Street
Tempe AZ 85281

Re: Healing Healthcare 3, Inc./Appeal of Denial of Use Acceptance Request for Medical Marijuana, 111 South McClintock Drive, Tempe AZ 85281 PL150524

Dear Mr. Levesque:

On behalf of my client, Healing Healthcare 3, Inc. (HH3), we request reconsideration of the Board of Adjustment decision dated February 24, 2016 rejecting the appeal from the denial of the approval for a medical marijuana dispensary at 111 South McClintock Drive in Tempe. Since the February 24 Board meeting, we have learned that the acting chairman, David Lyon, is employed as an architect by SmithGroupJJR. According to its website,[1] "To assess progress and changes since its 2006 campus master plan, Arizona State University (ASU) enlisted SmithGroupJJR to help determine the university's capacity for growth and to define building priorities for the next 10 years. In addition to updating the master plans for all four ASU campuses, the strategic update includes 20 principles and actions for sustainable design."

As you know, the proposed dispensary is across the street from Karsten Golf Course, which is within the future master plan area SmithGroupJJR has been hired to update for ASU. Consequently, SmithGroupJJR has a pecuniary interest in development within and surrounding the future master plan area, including around the McClintock/Rio Salado intersection. This interest is imputed to its employee, Mr. Lyon. Therefore, Mr. Lyon had a conflict of interest, which he should have announced, and then he should have recused himself, just as Mr. Sell had done. At minimum, he should have announced his conflict.

This conflict is made all the worse because Mr. Lyon was the acting chairman and had the ability to direct the discussion and the outcome of the vote. In fact, he spoke at length about his views on the merits of the appeal. These views, which due to the conflict were presumptively colored by his employer's involvement with the neighboring master plan, included comparing

[1] www.smithgroupjjr.com/projects/arizona-state-university-master-plan-updates-for-four-campuses#4. SmithGroupJJR also was involved in ASU's new College of Nursing & Health Innovation building and the U of A Downtown Phoenix College of Medicine expansion. http://www.smithgroupjjr.com/projects/college-of-medicine-expansion#.Vs8vJvkrLRY; www.smithgroupjjr.com/projects/arizona-state-university-college-of-nursing-health-innovation#.Vs8sKPkrLRY.

dispensaries to noxious adult uses and public nuisances. As a matter of law, the 4-3 vote that was taken after he expressed his views was tainted by his conflict and his failure to inform his fellow Board members of his position.

It was, at minimum, a mistake for Mr. Lyon not to excuse himself, the mistake was a substantial factor in the split 4-3 decision, and the mistake prejudiced HH3. For these reasons, we request that the Board reconsider its decision and that Mr. Lyon recuse himself from further participation. Since this information has only recently come to light, we reserve the right to submit additional material prior to the next Board hearing.

Sincerely,

GALLAGHER & KENNEDY, P.A.

By: Jeffrey D. Gross

JDG/cjc
cc: Healing Healthcare 3, Inc.

5305018v1/27235-0001

Tempe

CITY OF TEMPE
BOARD OF ADJUSTMENT

Meeting Date: 02/24/2016
Agenda Item: 2

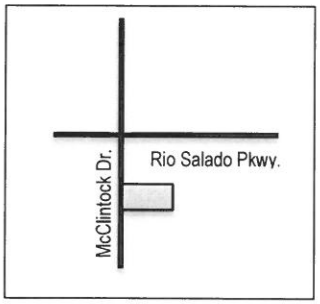
ACTION: Request appeal of the Zoning Administrator's decision to deny the proposed Medical Marijuana Dispensary location at 111 South McClintock Drive for HEALING HEALTHCARE 3 INC. (d.b.a. Swell Farmacy) (PL150524). The applicant is Jeffrey Gross, Gallagher and Kennedy.

FISCAL IMPACT: There is no fiscal impact on City funds.

RECOMMENDATION: None

BACKGROUND INFORMATION: HEALING HEALTHCARE 3 INC. (d.b.a. Swell Farmacy) (PL150524) filed an administrative review application for a zoning clearance request on December 22, 2015. After review of the request a determination was made on December 31, 2015, that the subject property did not comply with the separation requirements from a residential zoning district (500 feet). The request includes the following:

1. Appeal of the Zoning Administrator's decision to deny a request for a Medical Marijuana Dispensary located at 111 South McClintock Drive.



Property Owner	111 McClintock, LLC
Appellant	Jeffrey Gross, Gallagher and Kennedy
Current Zoning District	GID, General Industrial District
Gross/Net site area	19,200 sf.

ATTACHMENTS: Supporting Attachments

STAFF CONTACT(S): Ryan Levesque, Deputy Community Development Director (480) 858-2393

Department Director: Dave Nakagawara, Community Development Director
Legal review by: N/A
Prepared by: Ryan Levesque, Deputy Community Development Director

COMMENTS:

As a result of the voter-approved Medical Marijuana proposition in 2010, the State of Arizona adopted policies and regulations for implementation of the initiative. At the same time local municipalities were responsible for preparing regulations within their jurisdictions.

Tempe's Medical Marijuana regulations (Ordinance No. 2011.01) adopted in 2011, was the basis and accepted determination for providing reasonable zoning regulations for medical marijuana separation requirements and processing procedures in Tempe. See attachment.

Pursuant to the Zoning and Development Code, Section 3-426, Medical Marijuana; dispensary related uses are allowed in commercial and industrial districts, subject to compliance of the separation requirements found in the code and other operation requirements (No use permit requirement). As a result, an applicant must file an administrative zoning application to seek a "Use Acceptance" of the medical marijuana dispensary and/or cultivation facility. The use acceptance letter, if granted, allows the applicant to complete the remaining steps of filing an application with the Arizona Department of Health Services and subsequent application of building permits for related tenant improvements, before the use is in operation.

Part of the administrative review process is verifying whether the applicant has identified the necessary separation requirements in the Code. A 1,320 foot (1/4 mile) separation is required from property line to the parcel containing another medical marijuana dispensary or cultivation facility, child care facility, charter/private/public school providing elementary or secondary education, church or similar religious worship building, public park, library or public community building. A five hundred (500) foot separation is from a "RESIDENTIAL ZONING DISTRICT" or the property line of a property solely devoted to a residential use in any zoning district.

When evaluating the request for a medical marijuana dispensary located at 111 South McClintock Drive, it was determined that the subject property was substantially less than 500 feet from a "residential zoning district". The properties located at the northwest corner of Rio Salado Parkway and McClintock Drive is zoned "AG, Agricultural District". The properties consist of the ASU Karsten Golf Course owned by the Arizona Board of Regents, and a small corner property owned by the City of Phoenix used as a utility service yard. The AG, Agricultural District is defined within the Zoning and Development Code, Part 2, Chapter 1 – Zoning Districts, as within the category of "Residential Districts, more specifically defined within Section 2-102. See attachment reference. As a result, and through our administrative review process, the subject property is not in compliance with the zoning district separation requirements from "Residential Zoning Districts". This is not a land use separation matter and the code does not allow for any additional exceptions to this separation requirement regardless of its current condition or use.

When the City was processing the original Medical Marijuana ordinance back in 2011, a potential land use map was generated for identifying potential locations for dispensary or cultivation facility use. See attachment map. During the initial adoption period the City had received approximately 50 applications for dispensaries. Of those, the City granted acceptance use letters to 13 different sites throughout the City, providing further evidence that there are an adequate number of locations that would authorize such use. The Arizona Department of Health Services, at the time, limited jurisdictions to the number of dispensaries based their own established boundaries. The City of Tempe was authorized for two dispensaries, one in the northern portion of Tempe and the other in the southern portion. Two legal dispensaries in Tempe are currently in operation.

It should be noted that the City Council took action on additional amendments to Section 3-426, Medical Marijuana, adopted on December 2, 2015. Those ordinance changes were effective on January 2, 2016, after the application of this dispensary request. Because those amendments are not applicable to this request, it is irrelevant to discuss those changes within the context of this request.

HISTORY & FACTS:

October 29, 2010	Staff provided City Council a Friday memo update outlining the City of Tempe's current involvement with the Arizona League of Cities and Towns with potential provisions for the proposed Proposition 203, cited as the Arizona Medical Marijuana Act.
November 2, 2010	Election date, including the ballot initiative for Proposition 203, Arizona Medical Marijuana Act.
November 23, 2010	Development Review Commission held a study session with staff presenting an outline of proposed draft amendments regarding the regulation of medical marijuana.
December 1, 2010	Neighborhood Advisory Commission received a presentation by staff of an outline of proposed draft amendments regarding the regulation of medical marijuana.
December 14, 2010	Development Review Commission recommended approval of a Code Text Amendment for AZ MEDICAL MARIJUANA ACT Ordinance No. 2011.01. (5-2 Vote, DiDomenico and Webb dissenting)
December 17, 2010	The Arizona Department of Health Services (ADHS) posts initial draft of rules governing the regulatory system for the medical marijuana program.
January 13, 2011	City Council introduced and held the first public hearing for MEDICAL MARIJUANA (PL100378).
January 27, 2011	City Council held the second and final public hearing and adopted an ordinance for MEDICAL MARIJUANA (PL100378).

HISTORY OF CURRENT APPEAL CASE:

December 22, 2015	Application filed for HEALING HEALTHCARE 3, INC. requesting a Use Acceptance for a Medical Marijuana Dispensary located at 111 South McClintock Drive.
December 31, 2015	The Zoning Administrator issues a letter decision for this request, denying the request for a medical marijuana dispensary, based on the 500 foot residential district separation requirement.
January 13, 2016	An appeal of the Zoning Administrator's decision was filed by the aggrieved party of record. Appeals to ZA decisions are forwarded to the Board of Adjustment. Meeting schedule set for February 24, 2016.
February 24, 2016	Scheduled Board of Adjustment hearing for this request.

Tempe

SUPPORTING ATTACHMENTS
for
HEALING HEALTHCARE 3 INC.
(PL150524)

ATTACHMENTS:

1-7. Tempe Medical Marijuana Ordinance (Ordinance No. 2011.01) legislative findings

8. Excerpt from Code, Part 2, Chapter 1, Zoning Districts

9. Previous approved locations for Medical Marijuana

10. Existing/Potential locations for Medical Marijuana

11. Healing Healthcare 3 - Location Map

12. Healing Healthcare 3 – Aerial Map

13. Zoning Administrator's decision letter for 111 S. McClintock Dr.

14-67. Appellant's Justification/Explanation

ORDINANCE NO. 2011.01

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF TEMPE, ARIZONA, AMENDING THE ZONING AND DEVELOPMENT CODE, PART 3 – LAND USE, SECTIONS 3-202, 3-302, 3-426; PART 6 – APPLICATION AND REVIEW PROCEDURES, SECTION 6-313; PART 7 – DEFINITIONS, SECTION 7-114, AND AMENDING THE TEMPE CITY CODE, SECTION 26-70.

****

Mayor and City Council make the following legislative findings:

The Arizona Medical Marijuana Act, Proposition 203, approved by voters in the statewide election on November 2, 2010, provides for defined possession, use, distribution and transportation of marijuana for Medical Use within the State of Arizona.

Federal law and related regulations classify marijuana as a Schedule I controlled substance and prohibit its cultivation, possession, dispensing and use, among other things, for medical reasons.

Federal agencies, including the United States Drug Enforcement Administration, Food and Drug Administration, Office of National Drug Control Policy, have concluded that no sound scientific studies support the safe and effective use of marijuana for treatment of any disease or condition or do not support the use of smoked marijuana for medical purposes.

Arizona law, likewise, prohibits the possession, delivery, manufacture, cultivation and sale of marijuana.

Law enforcement and residents of states that authorize the Medical Use of marijuana report, among other things, that dispensaries and the Medical Use of marijuana are correlated to myriad negative secondary effects such as an increase in violent armed robberies and murders, burglaries, traffic, noise and drug dealing, in gangs and gang activity, organized crime and other issues related to the presence of large amounts of cash, such as money laundering and firearms violations, and the underreporting of crimes committed at Medical Marijuana Dispensaries, the creation of opportunities for the diversion of marijuana for Medical Use into illegal use and a disregard of environmental standards.

States that authorize the Medical Use of marijuana also report an increase in social costs related to the Medical Use of marijuana such as increased gang activity, poisonings, structural fires and mold growth, decreased quality of life and loss of business tax revenue.

Under the Arizona Act, the State issues Registry Identification Cards and renewals and adopts rules governing Nonprofit Medical Marijuana Dispensaries.

Under the Arizona Act, the City of Tempe is expressly permitted to enact reasonable zoning regulations that limit the use of land for registered Nonprofit Medical Marijuana Dispensaries. Arizona law also allows the City of Tempe to enact zoning regulations to protect and promote the public health, safety and general welfare and regulate the use of buildings, structures and land as between agriculture, residence, industry, business and other purposes.

The current Zoning and Development Code for the City of Tempe does not address or regulate the establishment, location or operation of these Dispensaries and related cultivation activities. The regulations, limits and prohibitions established in this Ordinance, including, among other things, minimum separation requirements, environmental issues and security plans, will reduce or eliminate threats to the public health, safety and general welfare. The regulations, limits, and prohibitions established in this Ordinance are necessary to protect and preserve the public health, safety and general welfare.

Nothing in this Ordinance is intended to establish any land use which violates federal or state law. Nothing in this Ordinance is intended to authorize or make legal any act that federal or state law does not permit or sanction or assist any violation of any federal or state law.

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF TEMPE, ARIZONA, as follows:

SECTION 1. That a portion of Table 3-202A and Table 3-202B of Section 3-202 of the Zoning and Development Code, pertaining to medical marijuana, is hereby amended to read as follows:

Table 3-202A – Permitted Land Uses (R/O, CSS, CC, PCC, RCC)

Uses	Status of Use District					
	R/O	CSS	CC	PCC-1	PCC-2	RCC
MEDICAL MARIJUANA DISPENSARY (WITHOUT CULTIVATION) [SECTION 3-426]	N	S	S	S	S	S
MEDICAL MARIJUANA CULTIVATION [SECTION 3-426]	N	N	N	N	N	N

Table 3-202B – Permitted Land Uses (MU-1, MU-2, MU-3, MU-4 and MU-Ed)

Uses	Districts				
	MU-1	MU-2	MU-3	MU-4	MU-Ed
MEDICAL MARIJUANA DISPENSARY [SECTION 3-426]	N	N	N	N	N
MEDICAL MARIJUANA CULTIVATION [SECTION 3-426]	N	N	N	N	N

SECTION 2. That a portion of Table 3-302A of Section 3-302 of the Zoning and Development Code, pertaining to medical marijuana, is hereby amended to read as follows:

Table 3-302A Permitted Land Uses (LID, GID, HID)

Uses	Districts		
	LID	GID	HID
MEDICAL MARIJUANA DISPENSARY [SECTION 3-426]	S	S	S
MEDICAL MARIJUANA CULTIVATION [SECTION 3-426]	N	S	S

SECTION 3. That Part 4, Land Use, Chapter 4 – Special Use Standards, within the Zoning and Development Code, is hereby amended by adding the following:

SECTION 3-426 MEDICAL MARIJUANA.

A. PURPOSE. THE PURPOSE OF THIS SECTION IS TO IMPLEMENT ARIZONA REVISED STATUTES, TITLE 36, CHAPTER 28.1; ENTITLED "ARIZONA MEDICAL MARIJUANA ACT".

CROSS REFERENCE—SEE ALSO THE FOLLOWING DEFINITIONS IN PART 7 OF THIS CODE: *MEDICAL MARIJUANA, MEDICAL MARIJUANA CULTIVATION FACILITY, AND MEDICAL MARIJUANA DISPENSARY.*

B. LOCATION REQUIREMENTS. A *MEDICAL MARIJUANA DISPENSARY,* WITHOUT *CULTIVATION,* IS ALLOWED IN THE CSS, CC, PCC-1, PCC-2, RCC, AND LID DISTRICTS. A *MEDICAL MARIJUANA DISPENSARY* OR *CULTIVATION FACILITY* IS ALLOWED IN THE GID AND HID ZONING DISTRICTS. THE LOCATIONS ARE LIMITED TO THE FOLLOWING:

1. A *MEDICAL MARIJUANA DISPENSARY* OR *MEDICAL MARIJUANA CULTIVATION FACILITY* SHALL NOT BE OPERATED OR MAINTAINED ON A PARCEL WITHIN 1,320 FEET, MEASURED BY A STRAIGHT LINE IN ALL DIRECTIONS, WITHOUT REGARD TO INTERVENING STRUCTURES OR OBJECTS, FROM THE NEAREST POINT ON THE PROPERTY LINE OF A PARCEL CONTAINING THE FOLLOWING:

   a. ANOTHER *MEDICAL MARIJUANA DISPENSARY* OR *CULTIVATION FACILITY*;

   b. A CHILD CARE FACILITY;

   c. A *CHARTER SCHOOL, PRIVATE SCHOOL, OR PUBLIC SCHOOL,* WHICH PROVIDES ELEMENTARY OR SECONDARY EDUCATION;

   d. A *CHURCH*, SYNAGOGUE, TEMPLE OR SIMILAR RELIGIOUS WORSHIP *BUILDING*; OR

   e. A PUBLIC PARK, LIBRARY, OR PUBLIC COMMUNITY *BUILDING*;

2. A *MEDICAL MARIJUANA DISPENSARY* OR *MEDICAL MARIJUANA CULTIVATION FACILITY* SHALL NOT BE OPERATED OR MAINTAINED ON A PARCEL WITHIN FIVE HUNDRED (500) FEET FROM A RESIDENTIAL ZONING DISTRICT OR THE PROPERTY LINE OF A PARCEL SOLELY DEVOTED TO A RESIDENTIAL USE IN ANY ZONING DISTRICT, MEASURED BY A STRAIGHT LINE IN ALL DIRECTIONS, WITHOUT REGARD TO INTERVENING STRUCTURES OR OBJECTS, FROM THE NEAREST POINT OF THE PROPERTY LINE OF A PARCEL CONTAINING SUCH USE.

3. *MEDICAL MARIJUANA CULTIVATION* FOR A CAREGIVER OR PATIENT'S RESIDENCE IN A RESIDENTIAL DISTRICT IS NOT PERMITTED, UNLESS SUFFICIENT EVIDENCE EXISTS THAT THE LOCATION IS GREATER THAN TWENTY-FIVE (25) MILES FROM A *MEDICAL MARIJUANA DISPENSARY* WITHIN THE STATE OF ARIZONA.

C. **OPERATION REQUIREMENTS.** ANY *MEDICAL MARIJUANA DISPENSARY* OR *CULTIVATION FACILITY*, EXCEPT WITHIN A RESIDENTIAL HOME, SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS, AS WELL AS THOSE CONTAINED WITHIN ARIZONA REVISED STATUTES, TITLE 36, CHAPTER 28.1:

1. THE BUSINESS SHALL BE LOCATED IN A PERMANENT BUILDING, WITH AN ENGINEERED FOUNDATION THAT MEETS TEMPE BUILDING CODE, AND NOT LOCATED IN A *MOBILE HOME*, *TRAILER*, CARGO CONTAINER, MOTOR VEHICLE, OR SIMILAR PERSONAL PROPERTY.

2. ONLY ONE (1) SECURED EXTERIOR DOORWAY SHALL BE ALLOWED FOR THE PURPOSE OF INGRESS OR EGRESS. THE MAXIMUM SIZE TENANT SPACE SHALL BE LIMITED TO THE SQUARE FOOTAGE DEDICATED FOR SUCH USE WITH ONE EXIT. ANY EXISTING DOORWAYS BEYOND THIS ALLOWANCE SHALL BE PERMANENTLY CLOSED BY REMOVING THE DOOR AND FRAME AND FILLING IN THE OPENING WITH PERMANENT CONSTRUCTION TO MATCH THE EXTERIOR WALL.

3. THE BUSINESS AND TENANT SPACE MUST COMPLY WITH TEMPE'S APPLICABLE BUILDING CODE AND FIRE CODE REQUIREMENTS.

4. DRIVE-THROUGH FACILITIES ARE PROHIBITED.

5. THE *MEDICAL MARIJUANA DISPENSARY* IS LIMITED TO THE HOURS OF OPERATION NOT EARLIER THAN 8:00 A.M. AND NOT LATER THAN 6:00 P.M.

6. *MEDICAL MARIJUANA* REMNANTS OR BI-PRODUCTS SHALL BE DISPOSED OF ACCORDING TO AN APPROVED PLAN AND NOT PLACED WITHIN THE FACILITIES EXTERIOR REFUSE CONTAINERS.

7. THERE SHALL BE NO EMISSION OF DUST, FUMES, VAPORS, OR ODORS INTO THE ENVIRONMENT FROM THE PREMISE.

8. A SECURITY PLAN IS REQUIRED, WHICH SHALL INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING:

   A. THE SINGLE DOORWAY FOR THE FACILITY SHALL PROVIDE A SECURITY VISION PANEL PURSUANT TO SECTION 4-406, EMPLOYEE SERVICE ENTRANCES AND EXITS, OR A 180 DEGREE ROTATABLE VIEWER. IF DOORWAY IS TRANSPARENT, THE DOOR SHALL BE DESIGNED WITH A MATERIAL THAT IS EITHER IMPACT RESISTANT OR RESTRICTS ENTRY BY MEANS OF A WROUGHT IRON GATE;

   B. CLOSED CIRCUIT TELEVISION CAMERAS, OPERATING 24 HOURS A DAY, SHALL BE PROVIDED AT THE BUILDING'S EXTERIOR ENTRANCE AND INSIDE THE BUILDING AT A DESIGNATED SERVICE AREA;

C. ALL LIGHTING FOR THE SITE SHALL BE BROUGHT INTO CONFORMANCE WITH THE CURRENT LIGHTING STANDARDS IDENTIFIED IN PART 4, CHAPTER 8, LIGHTING. THE BUILDING ENTRANCE OF THE BUSINESS SHALL BE ILLUMINATED FROM DUSK TILL DAWN ACTIVATED BY PHOTOCELL RELAY TO THE LIGHTING CONTROLLER ;

D. NO ONE UNDER THE AGE OF TWENTY-ONE (21) SHALL ENTER THE ESTABLISHMENT.

E. ANY PERSON, PRIOR TO ENTERING THE ESTABLISHMENT, SHALL REMOVE ALL HATS, SUNGLASSES OR OTHER SIMILAR OBJECTS, TO AVOID OBSTRUCTION OF PHYSICAL IDENTIFICATION.

D. **USE ACCEPTANCE.** A ZONING ADMINISTRATIVE APPLICATION SHALL BE PROCESSED, CERTIFYING THAT ALL CITY OF TEMPE REGULATIONS FOR THE *MEDICAL MARIJUANA DISPENSARY OR CULTIVATION FACILITY* ARE IN COMPLIANCE WITH THE PROVISIONS SET FORTH IN SECTION 3-426 OF THIS CODE. THE USE SHALL NOT COMMENCE WITHOUT THE ZONING ADMINISTRATOR, OR DESIGNEE, ACCEPTANCE LETTER. THE APPLICATION SHALL INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING ITEMS:

1. A PROJECT SUBMITTAL FORM WITH APPLICABLE FEE;

2. THE PROPERTY OWNER'S LETTER OF AUTHORIZATION FOR THE USE;

3. THE NAME AND LOCATION OF THE DISPENSARY'S OFF-SITE *MEDICAL MARIJUANA CULTIVATION FACILITY*, IF APPLICABLE;

4. A MAP SHOWING THE LOCATION IN COMPLIANCE WITH THE SEPARATION REQUIREMENTS LISTED IN SECTION 3-426(B);

5. A COPY OF OPERATING PROCEDURES ADOPTED IN COMPLIANCE WITH A.R.S. 36-2804(B)(1)(C);

6. A SITE PLAN;

7. A FLOOR PLAN OF THE BUILDING OR TENANT SPACE;

8. IF APPLICABLE, BUILDING PERMITS (SEPARATE SUBMITTAL) IN COMPLIANCE WITH TEMPE'S BUILDING CODE AND FIRE CODE; AND

9. A SECURITY PLAN, IN COMPLIANCE WITH SECTION 3-426(C).

SECTION 4. That Section 6-313(B), within the Zoning and Development Code, relating to security plans, is hereby amended to read as follows:

B. **Applicability and Procedure.** Security plans are required for the following uses subject to the standards contained in Chapter 26, Article V, Security Plans, of the Tempe City Code:

1. *Bars*, cocktail lounges, taverns, discotheques, nightclubs and similar businesses;

2. *Adult-oriented businesses*;

3. Recreational or amusement businesses, including both indoor and outdoor activities, including pool halls and *video arcades*;

4. *Entertainment* as accessory to *restaurant* facilities, *bars* or similar establishments;

5. Hotels and motels;

6. Convenience stores;

7. *MEDICAL MARIJUANA DISPENSARY* OR *CULTIVATION FACILITY*; and

8. Any other use determined by the Community Development Director or the Chief of Police, or their designees, to be similar to a use listed immediately above.

SECTION 5. That Section 7-114, within the Zoning and Development Code, relating to definitions, is hereby amended to read as follows:

MEDICAL MARIJUANA MEANS ALL PARTS OF ANY PLANT OF THE GENUS CANNABIS WHETHER GROWING OR NOT, AND THE SEEDS OF SUCH PLANT TO TREAT OR ALLEVIATE A REGISTERED QUALIFYING PATIENT'S DEBILITATING MEDICAL CONDITION OR SYMPTOMS ASSOCIATED WITH THE PATIENT'S DEBILITATING MEDICAL CONDITION.

MEDICAL MARIJUANA CULTIVATION FACILITY MEANS AN ENTITY THAT CULTIVATES OR MANUFACTURES MARIJUANA BY THE MEANS OF COOKING, BLENDING, OR INCORPORATING INTO CONSUMABLE/EDIBLE GOODS OR OTHER MEANS FOR A *MEDICAL MARIJUANA DISPENSARY*.

MEDICAL MARIJUANA DISPENSARY MEANS A NOT-FOR-PROFIT ENTITY THAT ACQUIRES, POSSESSES, DELIVERS, TRANSFERS, TRANSPORTS, SUPPLIES, SELLS OR DISPENSES MARIJUANA OR RELATED SUPPLIES TO CARDHOLDERS.

SECTION 6. That Section 26-70(b), within Tempe City Code Chapter 26, Article V. Security Plans, is hereby amended to read as follows:

(b) *Uses requiring security plans.* A security plan shall be required upon the commencement or assumption of any of the following uses:

(1) Bars, cocktail lounges, taverns, discotheques, nightclubs and similar businesses;

(2) Adult-oriented businesses;

(3) Recreational or amusement business, both indoor and outdoor activities, including pool halls and video arcades;

(4) Entertainment as accessory to restaurant facilities, bars or similar establishments;

(5) Hotels and motels;

(6) Convenience stores; ~~and~~

(7) MEDICAL MARIJUANA DISPENARY OR CULTIVATION FACILITY; AND

(8) Any other use determined by the community development director or the chief of police, or their designees, to be similar to a use listed above.

SECTION 7. Pursuant to City Charter, Section 2.12, ordinances are effective thirty (30) days after adoption.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF TEMPE, ARIZONA, this 17th day of Jan., 2011.

Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

CHAPTER 1 – ZONING DISTRICTS

Section 2-101 Purpose.

The General Plan establishes land use designations for Residential, Commercial, Mixed-Use, Industrial, and residential *density* ranges from low to high *density*. This Code designates zoning districts to promote compatibility between land uses, *buildings* and *structures*; efficient use of land; transportation options and *accessibility*, promote economic vitality; and maintain crime prevention and safety. The districts classify, regulate and restrict uses, as well as combine uses and encourage the location of compatible land uses close to one another. The district regulations provide *development* standards pertaining to the *intensity* of land uses and *development*, height and bulk of *buildings* and *structures*, and area of *yards* and other open areas between *buildings* and *structures*.

Section 2-102 Residential Districts.

Residential districts include the following:

A. Agricultural (AG)

B. Single-Family Residential (includes: R1-15, R1-10, R1-8, R1-7, R1-6, R1-5, and R1-4)

C. Single-Family Residential Planned Area Development (R1-PAD) (requires a PAD Overlay)

D. Multi-Family Residential (R-2)

E. Multi-Family Residential Restricted (R-3R)

F. Multi-Family Residential Limited (R-3)

G. Multi-Family Residential General (R-4)

H. Multi-Family Residential High Density (R-5)

I. Manufactured Housing Subdivision (MHS)

J. Mobile Home Residence (RMH)

K. Trailer Park (TP)

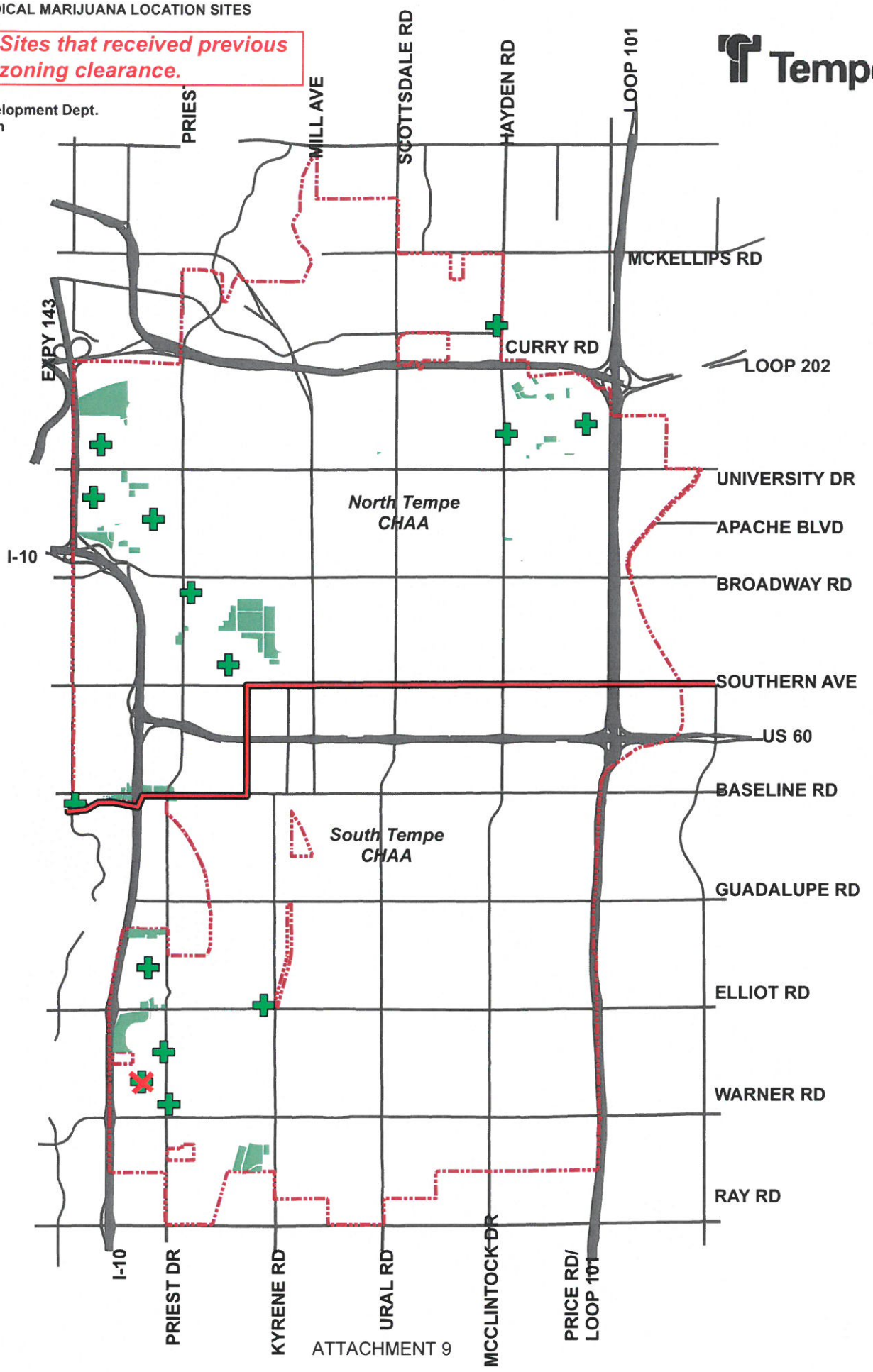
POTENTIAL MEDICAL MARIJUANA LOCATION SITES

Updated:
May 4, 2011

Sites that received previous zoning clearance.

Source:
Community Development Dept.
Planning Division

Tempe



ATTACHMENT 9

POTENTIAL MEDICAL MARIJUANA DISPENSARY/CULTIVATION AREAS

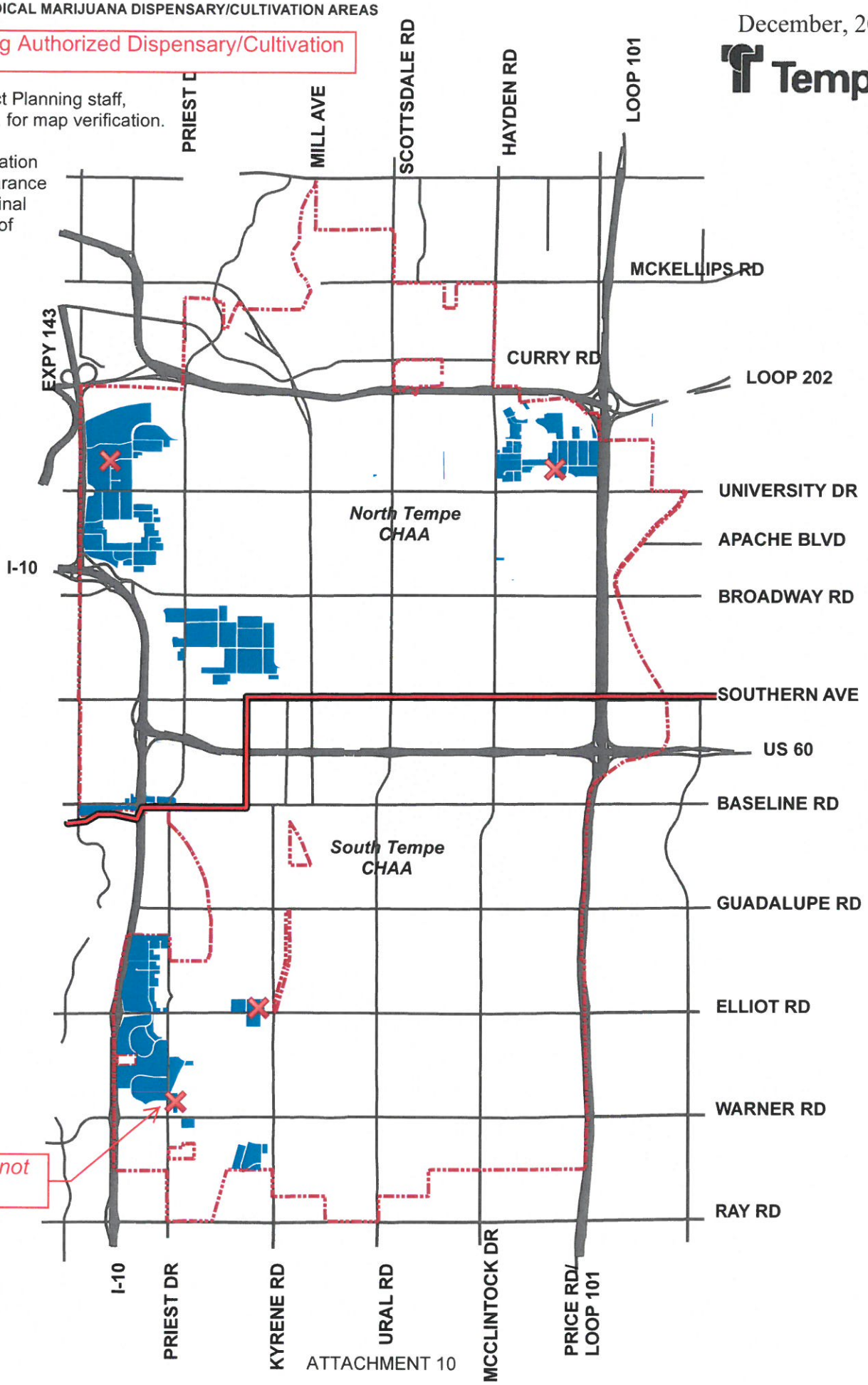
December, 2015

Tempe

Existing Authorized Dispensary/Cultivation

NOTE: Contact Planning staff, , for map verification.

Only an application for zoning clearance will provide a final determination of property site.

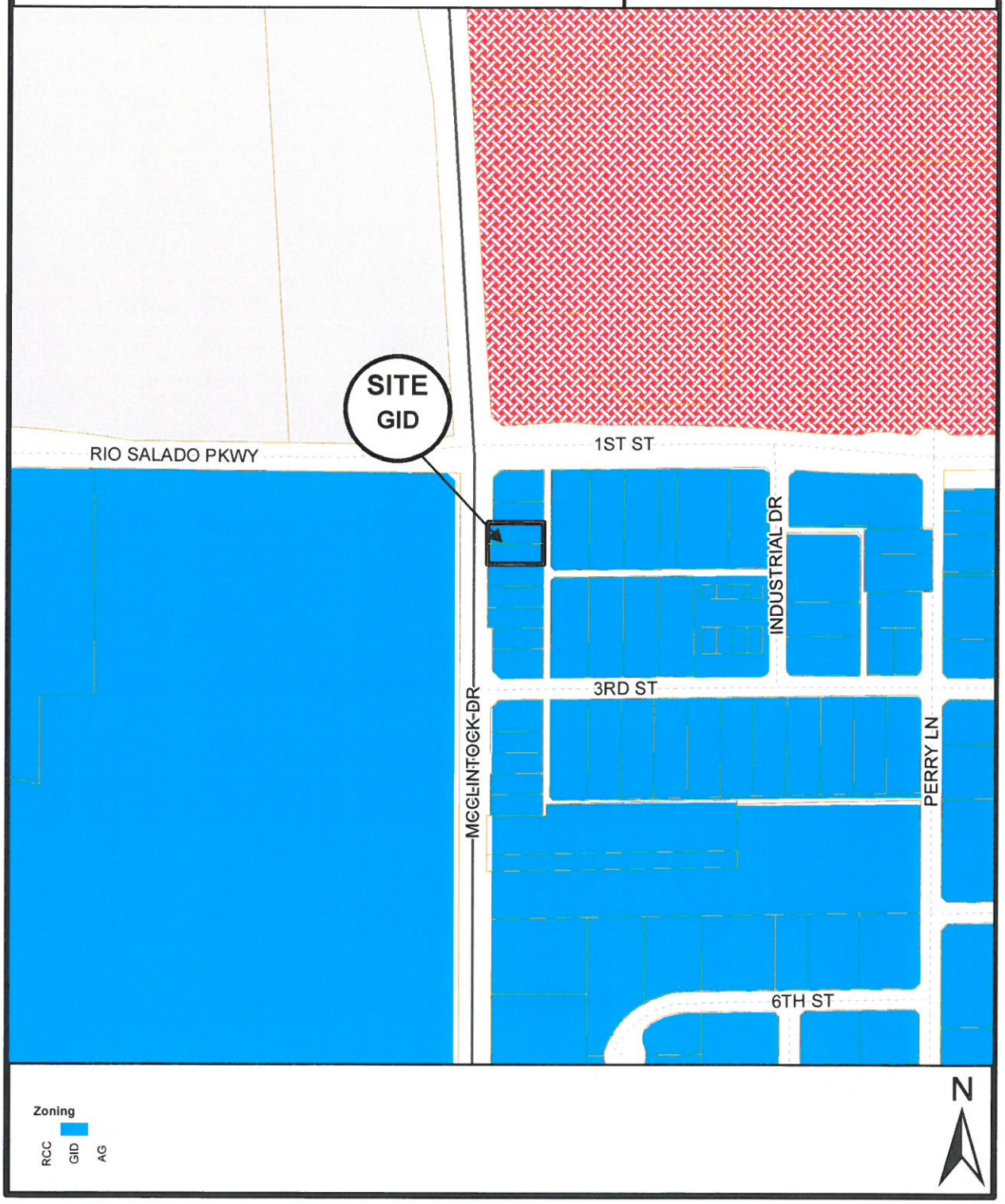


Approved, but not in operation

ATTACHMENT 10

Tempe

HEALING HEALTHCARE 3 INC.	PL150524



Location Map

Tempe

HEALING HEALTHCARE 3 INC.	PL150524

Location Map

ATTACHMENT 12

City of Tempe
P. O. Box 5002
31 E. 5th Street
Tempe, AZ 85280
480-350-8331
www.tempe.gov

Tempe

Community Development Department
Planning Division

December 31, 2015

James Kaufman
Healing Health 3, Inc.
10575 N 114th Street, Ste 115
Scottsdale, AZ 85259
jhkaufman@mac.com

RE: Healing Healthcare 3, Inc. (d.b.a. "Swell Farmacy")
Use Acceptance request for Medical Marijuana
111 S. McClintock Drive, Tempe, AZ 85281

Dear Mr. Kaufman:

The Community Development, Planning Division received your application on December 22, 2015 for a Medical Marijuana Dispensary located at the site above. The location proposed at this time does not comply with the Zoning and Development Code, Section 3-426, B. Medical Marijuana location requirements because it is located within 500 feet of a Residential Zoning District (AG, Agricultural District) at the northwest corner of Rio Salado Parkway and McClintock Drive.

If you are aggrieved by this decision you may appeal to the Board of Adjustment within fourteen (14) calendar days, from the date of this letter, by filing a notice of appeal with the Community Development Department or City Clerk, specifying the grounds for such appeal, and any applicable fees. After receipt of an appeal letter, a public hearing for the appeal will be scheduled at the next regular meeting of the Board of Adjustment.

If you have any questions, please contact the Planning Division at 480-350-8331

Sincerely,

Ryan Levesque
Zoning Administrator
Deputy Community Development Director

RL/sd

Gallagher&Kennedy

Jeffrey D. Gross
Attorney
Certified Real Estate Law Specialist
Direct: (602) 530-8390
E-mail: jeff.gross@gknet.com

February 12, 2016

VIA HAND DELIVERY

City of Tempe
Board of Adjustment
31 East Fifth Street
Tempe AZ 85281

Re: Healing Healthcare 3, Inc./Appeal of Denial of Use Acceptance Request for Medical Marijuana, 111 South McClintock Drive, Tempe AZ 85281

Dear Sir or Madam:

This firm represents Healing Healthcare 3, Inc. ("HH3"), which submitted a request for approval of a medical marijuana dispensary ("Facility") at 111 South McClintock Drive ("Property"). On December 31, 2015, the Zoning Administrator denied HH3's request on the ground that the Property is located within 500 feet of property zoned AG (Agricultural District). HH3 appealed that decision. As we will discuss, the Zoning Administrator's decision must be reversed for the following reasons:

1. The spacing requirements for dispensaries are not authorized by state law.

2. By statute, the City is limited to adopting reasonable zoning regulations for medical marijuana dispensaries, and the spacing restrictions are not reasonable.

3. The City's 500-foot spacing requirement from residential property is arbitrary and capricious on its face and as applied to the Property.

4. The moratorium on new dispensaries is illegal and is not authorized by state law.

I. The City's Restrictions On Location Of Medical Marijuana Dispensaries Are Not Reasonable Or Valid Zoning Regulations.

When voters legalized medical marijuana through adoption of Proposition 203 in 2010, the initiative permitted cities to adopt zoning regulations, but *only* to the extent that the regulations are reasonable and are authorized by Arizona statute:

> Cities, towns and counties may enact *reasonable* zoning regulations that limit the use of land for registered nonprofit medical marijuana dispensaries to specified areas *in the manner provided in [A.R.S. § 9-462 et seq.]*.

A.R.S. § 36-2806.01 (emphasis added).

The spacing requirements imposed by the Zoning and Development Code ("Code") are not authorized by Arizona statutes that give the City the power to zone, and are not reasonable. We will discuss those two issues in turn.

A. <u>The Spacing Requirements Are Not Authorized By Arizona Statute</u>.

Because municipal zoning authority comes from the state, "the power must be exercised within the limits and in the manner prescribed in the grant and not otherwise." *Jachimek v. Superior Court*, 169 Ariz. 317, 318 (1991). A.R.S. § 9-462.01 creates the City's zoning power. Through that statute, the state legislature gave the City twelve distinct and specific powers to:

1. Regulate the use of buildings, structures, and land as between agriculture, residence, industry, business, and other purposes.

2. Regulate signs and billboards.

3. Regulate the location, height, bulk, number of stories and size of structures, the size and use of lots and other open spaces, the percentage of a lot that may be occupied by a structure, access to solar energy, and the intensity of land use.

4. Establish requirements for off-street parking and loading.

5. Establish and maintain building setback lines.

6. Create civic districts.

7. Require as a condition of rezoning public dedication of rights-of-way.

8. Establish floodplain zoning districts and regulations.

9. Establish special zoning districts or regulations for certain lands characterized by adverse topography, adverse soils, subsidence of the earth, high water table, lack of water, or other hazards.

10. Establish districts of historical significance.

11. Establish age-specific community zoning districts.

12. Establish procedures, methods, and standards for the transfer of development rights.

A.R.S. § 9-462.01(A).

None of these powers give the City authority, express or implied, to adopt spacing requirements for medical marijuana dispensaries.[1] The only subsection that could conceivably apply is A.R.S. § 9-462.01(A)(1), but even that provision only allows the City to regulate use of land as between certain broad purposes. Because the spacing requirements go beyond the limits imposed by statute, they are invalid.

B. <u>The Spacing Requirements Are Not Reasonable Zoning Regulations</u>.

1. The Blanket Spacing Requirement Is Unreasonable.

Even if the authority to adopt spacing requirements existed, a blanket spacing requirement is not a "reasonable zoning regulation" as required by A.R.S. § 36-2806.01. The Tempe Zoning Code imposes severe restrictions on medical marijuana dispensaries, which are allowed only in certain commercial and industrial zoning districts. Even in these districts, dispensaries cannot be located within 1,320 feet of another dispensary, a childcare facility, school, church, synagogue, temple, public park, library or public community building, or 500 feet from a residential zoning district or residential use.

Based just on the zoning, the potential dispensary areas are very limited. After eliminating sites that violate the spacing requirements, few remaining sites exist. The potential areas for sites are outlined in dark green on **Exhibit 1**. However, most of the parcels within those areas, as would be expected in a built-out city, are owned and not on the market. Furthermore, as the City undoubtedly knew in drafting the medical marijuana ordinance, many commercial and industrial properties are subject to deed restrictions or other encumbrances that preclude uses that do not comply with federal law. In fact, there is not a single property in Tempe that has the zoning, availability, structural requirements, and property rights for a medical marijuana facility, other than the Property.

The purpose of Proposition 203 was to make medical marijuana reasonably available to those who may benefit from it. The City's spacing requirements that severely limit the location of dispensaries defeat that legislative purpose. As such, the ordinance is invalid on its face.

2. The 500-Foot Spacing Requirement Is Unreasonable As Applied.

Even if the power existed, and even if a blanket spacing requirement is not facially invalid, the ordinance is not reasonable as applied to the Property.

The only area with AG or residential zoning within 500 feet of the Property is at the northwest corner of McClintock Drive and Rio Salado Parkway. This land never has been, and never will be, used for residential purposes. The land is owned by the Arizona Board of Regents, and Karsten Golf Course has been located there since 1989. Arizona State University has

[1] In contract, the City has the power to adopt spacing requirements for adult uses by virtue of a different statute, A.R.S. § 13-1422.

committed to developing Karsten Golf Course pursuant to a master plan, which depicts most if not all of the land as a parking area. *See* **Exhibit 2.** There is very good reason for limiting the land to parking use, since the land lies under four rows of large, high voltage electrical transmission lines (two of which appear to be 230kv lines and the other two 115kv or 69kv lines), making it unusable for residential purposes. Photographs of the transmission lines are attached as **Exhibit 3**.

In fact, all of the land is within a 400-foot wide APS easement for the power lines that prohibits *any* structure from being built. A survey, attached as **Exhibit 4**, shows the easement area in blue, and all of the AG-zoned area within 500 feet of the Property is burdened by the easement. The easement specifically and unambiguously provides that "Grantor [property owner] shall not erect or construct or permit to be erected or constructed any building or other structure, plant any trees or drill any well, within the limits of said right of way." *Id.* at p. 2. As a result, no residential use legally may be maintained within the easement. *See* **Exhibit 5**. Due to the proximity of APS's Ocotillo Power Plant at the southwest corner of Rio Salado Parkway and McClintock Drive and APS's ambitious plans to modify the major facility, it is clear that the power lines and power line easement are not going anywhere, and permanently bar development of the land for residential use.

Given these facts, it is not reasonable to apply the 500-foot residential spacing requirement of the Code to the Property. The only reason for doing so is to circumvent the legislation approved by the Arizona voters that permits medical marijuana dispensaries. That is not a legitimate function of the City's zoning power.

II. The City's Application Of The Spacing Requirements To The Property Is Arbitrary, Capricious, And An Abuse Of Discretion.

The United States Supreme Court has ruled that "a regulation that fails to serve any legitimate governmental objective may be so arbitrary or irrational that it runs afoul of the Due Process Clause." *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 542 (2005). The Arizona Supreme Court has likewise held that government action that is arbitrary, irrational, or not reasonably related to furthering a legitimate state purpose violates the Equal Protection and Due Process clauses of the United States and Arizona Constitutions. *Coleman v. City of Mesa*, 230 Ariz. 352, 363 (2012).

In *Coleman*, the Arizona Supreme Court ruled that Mesa's denial of a use permit for a tattoo parlor could violate the owner's due process rights, holding that a governmental regulation or action based on perceptions, stereotypes, and prejudice rather than facts demonstrating that a land use would harm the community does not further a legitimate government purpose. And in *Corrigan v. City of Scottsdale*, the Arizona Court of Appeals found that an ordinance prohibiting building on mountain slopes was not a proper exercise of the police power because it did not sufficiently advance a legitimate state interest:

> The evidence does not support nor did the trial judge find that a deplorable condition exists or would exist without the Hillside Ordinance. Although the trial court found certain safety concerns it did not find there would be a substantial threat to public safety without the ordinance. Obviously there often is and has been building in mountainous or hilly areas within the Valley of the Sun. Therefore the ordinance was not a valid exercise of police power.

Corrigan v. City of Scottsdale, 149 Ariz. 553, 561-62 (App. 1985) *aff'd in part, vacated in part on other grounds*, 149 Ariz. 538 (1986).

Under the test – that a governmental regulation must have a substantial relationship to a legitimate state interest – the 500-foot spacing requirement is invalid on its face.

The City could have had two reasons for keeping medical marijuana dispensaries 500 feet from residential areas: a desire to keep nearby residents from obtaining medical marijuana too easily, or fear that dispensaries will bring crime to residential areas. The first can be disposed of quickly. Arizona has decided, through a statewide initiative election, that medical marijuana is not only legal, but beneficial. The medical marijuana industry is highly regulated by the State of Arizona to ensure that a safe, medically-necessary product is being sold to registered purchasers. It is arbitrary and capricious for the City to adopt an ordinance that keeps a legal, medically certified product from operating within 500 feet of residential areas.

The fear of crime is not founded on any factual basis. Indeed, a recent systematic study by University of Texas established that medical marijuana dispensaries do not increase crime. The Effect of Medical Marijuana Laws on Crime: Evidence from State Panel Data, 1990-2006 (2014), attached as **Exhibit 6**. This study analyzed data on seven "Part I" offenses – homicide, rape, robbery, assault, burglary, larceny, and auto theft – for all 50 states for the 17-year period from 1990 to 2006 and concluded that the evidence did not "indicate a crime exacerbating effect of [medical marijuana] on any of the Part 1 offenses." *Id.* at 2. The Texas study reached the same conclusion as an earlier UCLA study that analyzed Sacramento crime data, and concluded that "Density of medical marijuana dispensaries was not associated with violent or property crime rates." Exploring the Ecological Association Between Crime and Medical Marijuana Dispensaries (2012), attached as **Exhibit 7**.

These studies, which are backed by scientific analysis from major institutions rather than anecdotal sources, establish that the 500-foot spacing requirement lacks a sufficient relationship to any governmental interest, but is based on prejudices and stereotypes. Accordingly, the spacing requirement is invalid on its face.

The 500-foot spacing requirement also is invalid as applied to the Property. As discussed above, HH3's request was denied for the sole reason that it is within 500 feet of AG-zoned property that will never be developed – and <u>*cannot*</u> be developed – for residential use. Since the clear (albeit invalid) purpose of the 500-foot spacing requirement is to keep dispensaries away

from where residents live, and since no residents will ever live within 500 feet of the Facility, there is absolutely no relationship between the law and HH3's use. Therefore, applying the law to deny the Facility is arbitrary, capricious, and an improper exercise of the City's police power that runs afoul of the due process clause of the Arizona and United States Constitutions.

III. The City's Moratorium On Additional Medical Marijuana Facilities Is Not A Reasonable Zoning Regulation And Violates Arizona Law.

Although the City adopted a moratorium limiting the number of dispensaries to two, HH3 submitted its request for approval before the moratorium went into effect. Since the City unlawfully denied the request, the moratorium does not apply to HH3. To the extent the City would try to apply the moratorium to HH3, it is invalid for other reasons: it is not a reasonable zoning regulation that limits the use of land for dispensaries to specified areas, and it violates the state law restricting the City's ability to adopt a moratorium.

First, a moratorium is not a reasonable zoning regulation that the City may adopt under A.R.S. § 36-2806.01. The City's zoning authority is restricted to adopting reasonable regulations limiting dispensaries "to specified areas." In other words, the City can only specify in which zones dispensaries may be located. Prohibiting any more than two dispensaries goes far beyond that narrow power.

Second, the attempted moratorium is unreasonable because it is preempted by state statute. Pursuant to A.R.S. § 36-2804(C), the Arizona Department of Public Safety (DPS) may issue one dispensary permit for every ten registered pharmacies. As a result, it is DPS, not the City, that controls the number of dispensaries. There is no room in this legislative scheme for the City to interfere with the dispensary licensing powers of DPS. Only the State of Arizona may control the number of dispensaries.

Finally, the attempted moratorium is not a reasonable zoning regulation – and is in fact outright invalid – because the City failed to comply with A.R.S. § 9-463.06. That statute, which the City is bound by law to follow, severely limits the City's authority to adopt a moratorium. Before enacting a moratorium, the City must make findings that there is a shortage of public facilities, and the moratorium may only remain in effect for 120 days. This moratorium cannot satisfy these and other statutory standards, which renders it invalid.

IV. CONCLUSION.

For the foregoing reasons, the decision to deny approval of the Facility must be reversed. HH3 reserves all of its rights with respect to this matter, including its rights to challenge the denial and moratorium in court as violations of state and federal antitrust laws, and/or violations of HH3's civil rights.

G|K

We look forward to the February 24, 2016 Board of Adjustment meeting. Thank you for your attention to this matter.

Sincerely,

GALLAGHER & KENNEDY, P.A.

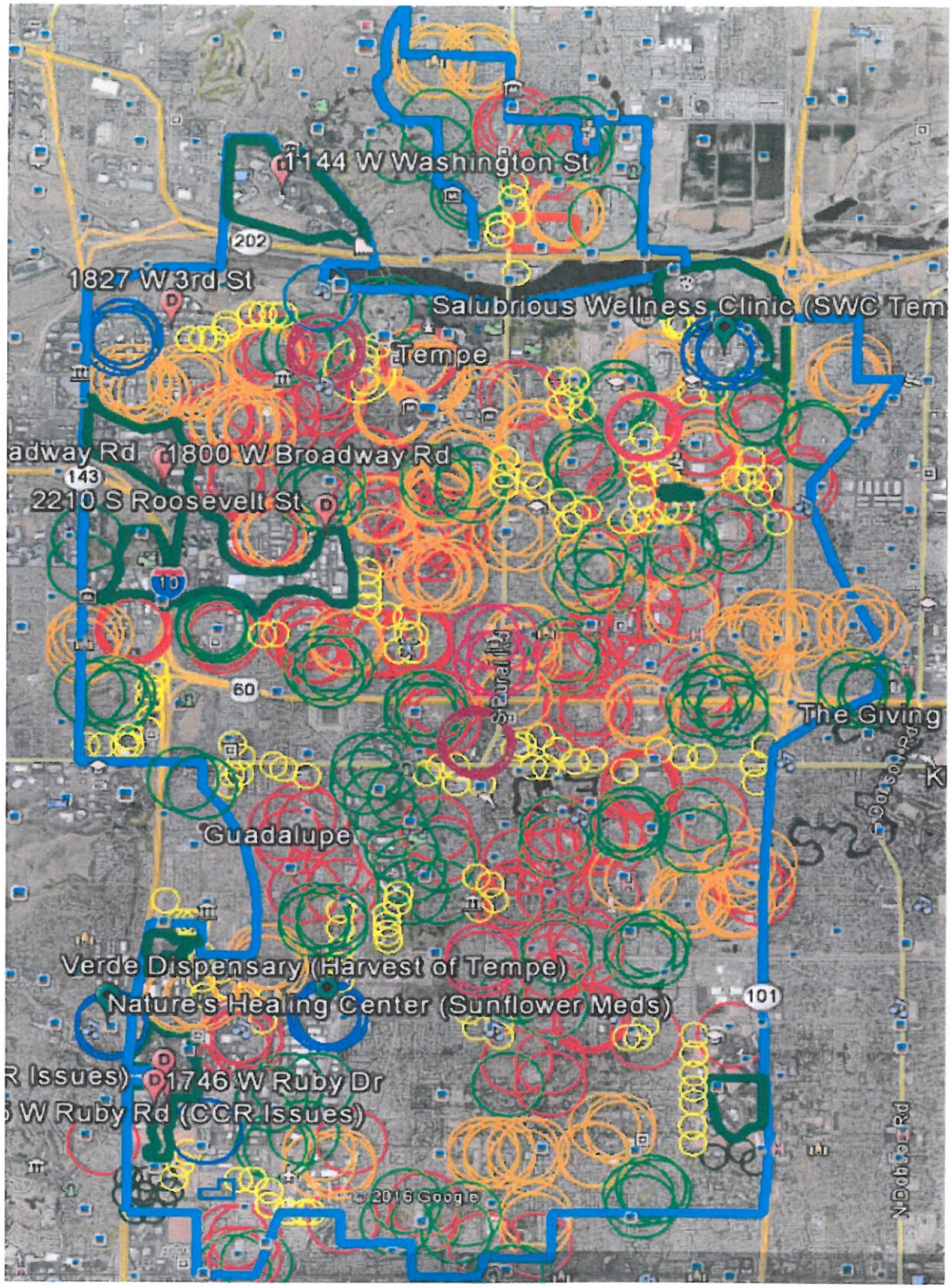
By: Jeffrey D. Gross

JDG/cjc
Enclosures
cc: Healing Healthcare 3, Inc. w/ encs.
Ryan Levesque, Zoning Administrator w/ encs.

5201283v1/27235-0001

Exhibit 1

Exhibit 1



Churches in Orange
Schools/Child Care Facilities in Red
Residential in Yellow
Community Centers in Purple
Parks in **Green**
Other MMJ facility in **dark Blue**

ATTACHMENT 22

Exhibit 2

Exhibit 2

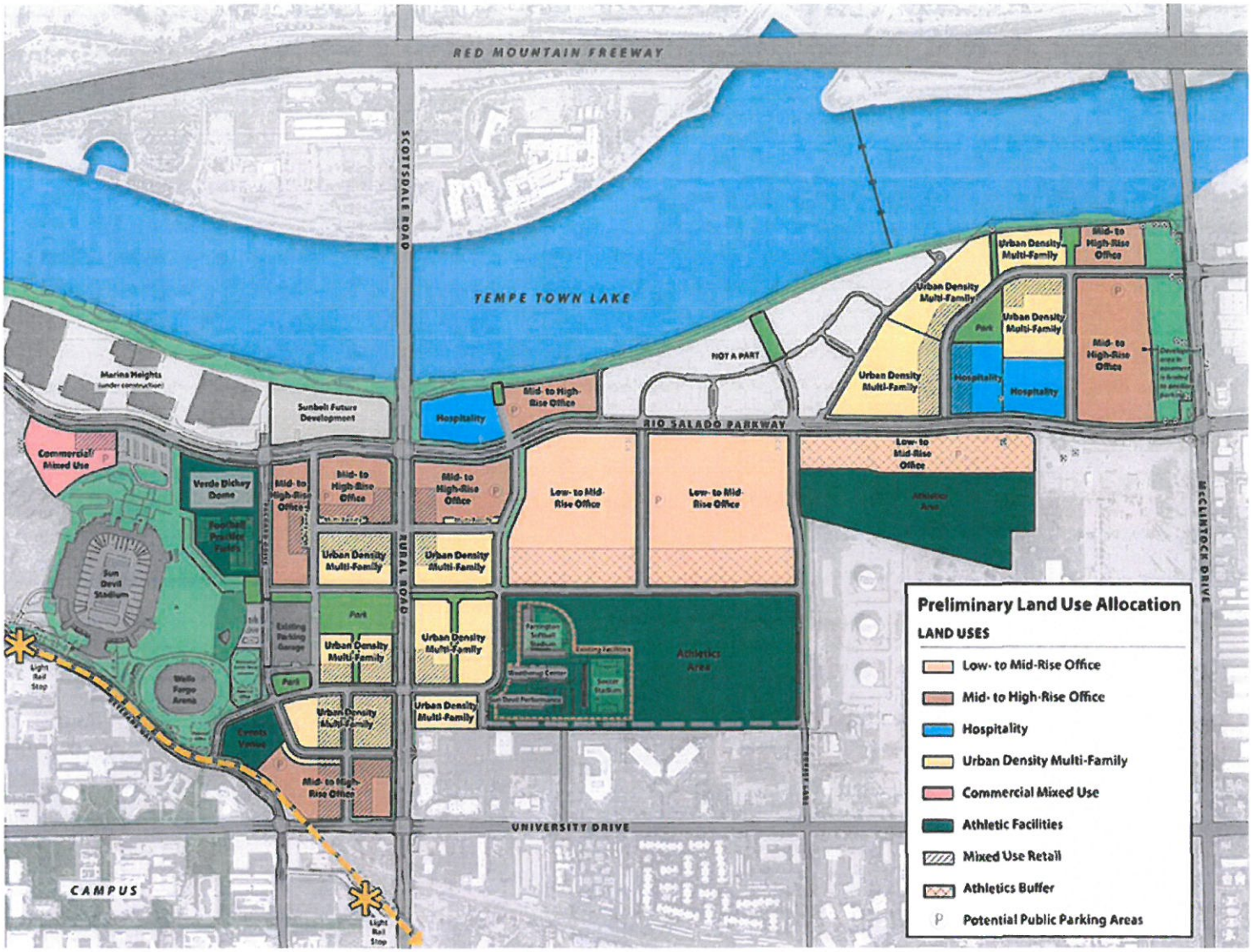
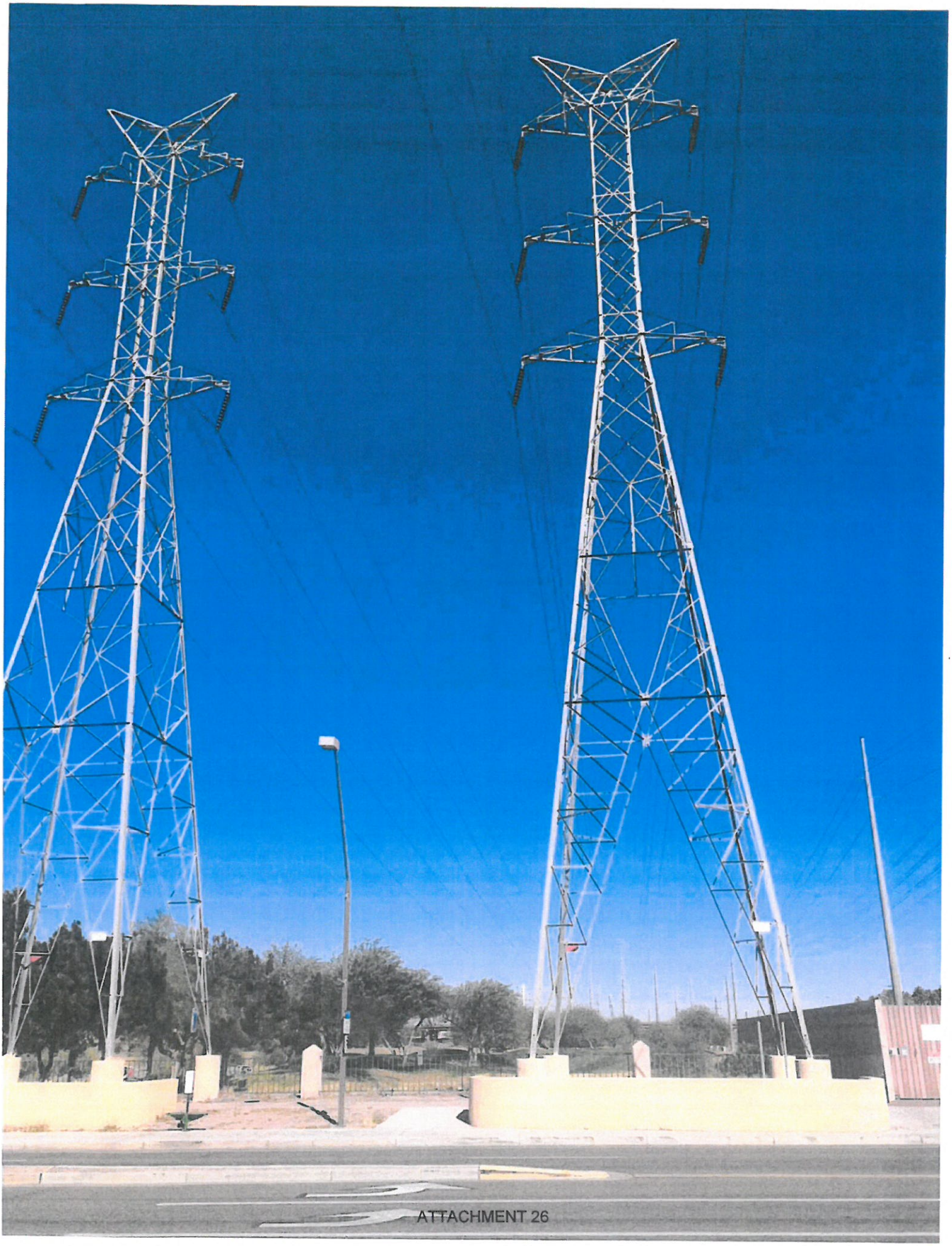

RED MOUNTAIN FREEWAY
SCOTTSDALE ROAD
TEMPE TOWN LAKE
NOT A PART
RIO SALADO PARKWAY
RURAL ROAD
MCCLINTOCK DRIVE
UNIVERSITY DRIVE
CAMPUS
Marina Heights
Sunbelt Future Development
Commercial/ Mixed Use
Verde Dickey Dome
Sun Devil Stadium
Wells Fargo Arena
Light Rail Stop
Hospitality
Mid- to High-Rise Office
Low- to Mid-Rise Office
Urban Density Multi-Family
Park
Athletics Area
Preliminary Land Use Allocation
LAND USES
Low- to Mid-Rise Office
Mid- to High-Rise Office
Hospitality
Urban Density Multi-Family
Commercial Mixed Use
Athletic Facilities
Mixed Use Retail
Athletics Buffer
Potential Public Parking Areas

Exhibit 3

Exhibit 3

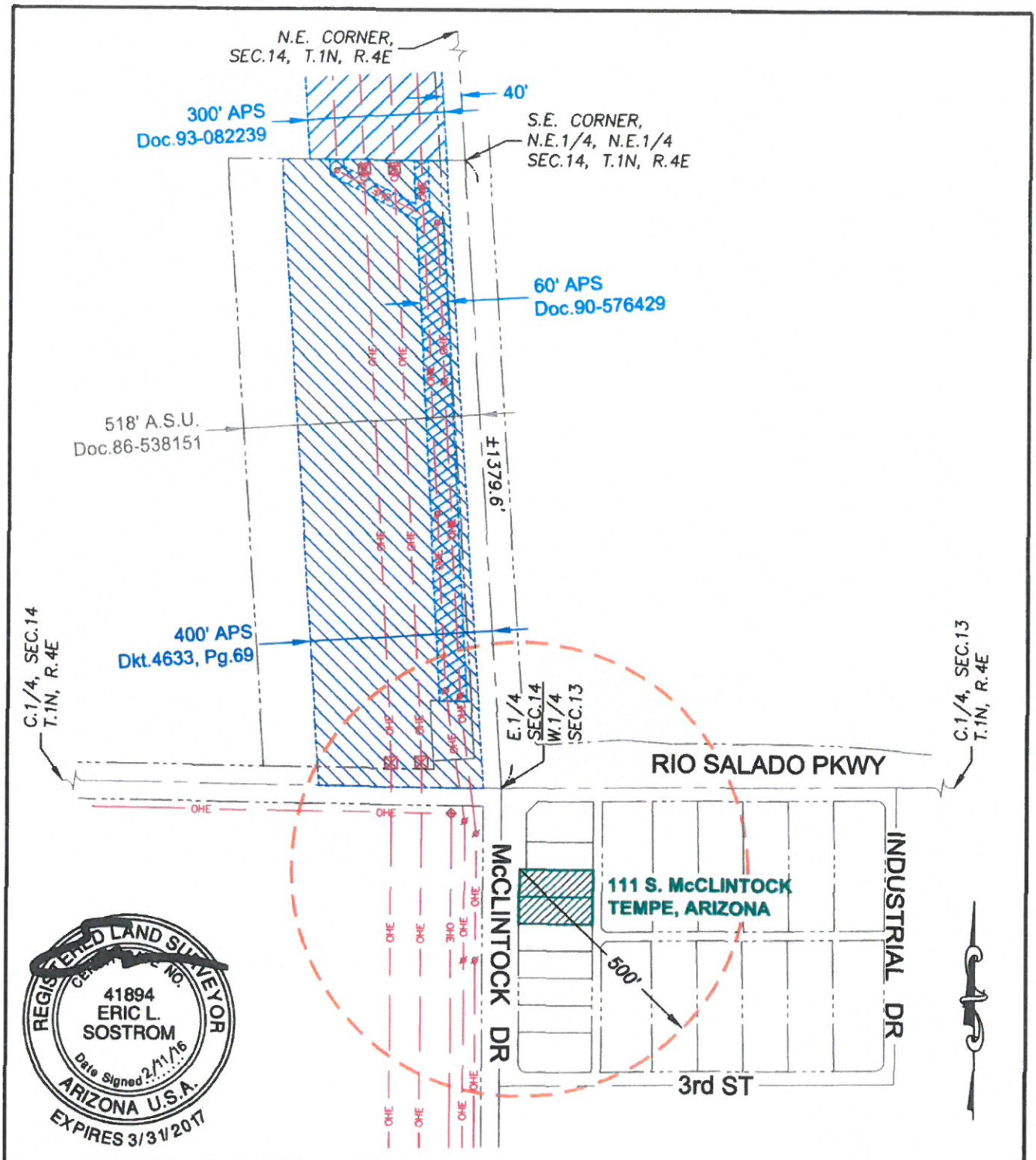

ATTACHMENT 26

ATTACHMENT 27

ATTACHMENT 28

Exhibit 4

Exhibit 4



S|I|G
SURVEY INNOVATION GROUP, INC
Ph (480) 922 0780 *Land Surveying Services* Fx (480) 922 0781
7301 EAST EVANS ROAD, SCOTTSDALE, AZ 85260

500' RADIUS FROM 111 S. McCLINTOCK DRIVE TEMPE, ARIZONA

JOB #16-025	DWG: 16025 EXHIBIT		DATE 2/11/16
SCALE: N.T.S.	DRAWN: ELS	CHK: JAS	SHEET 1 OF 1

Exhibit 5

Exhibit 5

GRANT OF RIGHT OF WAY FOR
ELECTRIC TRANSMISSION LINES

GENERAL INVESTMENT COMPANY, an Arizona corporation of the County of Maricopa, State of Arizona, herein called the Grantor, for and in consideration of the sum of Ten Dollars ($10.00) and other good and valuable considerations paid by ARIZONA PUBLIC SERVICE COMPANY, herein called the Grantee, the receipt of which is hereby acknowledged, does hereby grant unto the Grantee, its successors and assigns, a right of way and easement upon the lands hereinafter described, to erect, construct, reconstruct, replace, repair, maintain, and use three lines of steel towers and wires or cables suspended thereon and supported thereby, for the transmission of electricity, and wires for telephone, signal and communication purposes of Grantee only, and all other appliances and fixtures for use in connection therewith, together with the right of ingress and egress in, upon, under, over and across the hereinafter described lands, without warranty except against acts of Grantor.

The lands upon which this right of way and easement is granted are situated in the County of Maricopa, State of Arizona, and are particularly described as:

> The East 400 feet of the Southeast Quarter of the Northeast Quarter ($SE_{\frac{1}{4}}NE_{\frac{1}{4}}$) of Section Fourteen (14), Township One (1) North, Range Four (4) East of the Gila and Salt River Base and Meridian:
> EXCEPT the East 40 feet for roadway.

Grantor, its successors and assigns, shall have the right to remove sand and gravel from the above described lands, except within the South 200 feet thereof. Grantee shall have

the right to erect heretofore mentioned steel towers only within the said South 200 feet.

Grantor shall not erect or construct or permit to be erected or constructed any building or other structure, plant any trees or drill any well, within the limits of said right of way.

Grantee shall have the right to erect, maintain and use gates in all fences which now cross or shall hereafter cross said right of way and to trim, cut and clear away trees or brush whenever in its good judgment the same shall be necessary for the convenient and safe exercise of the rights hereby granted.

Grantor reserves the right to cultivate, use and occupy said premises for any purpose consistent with the rights and privileges above granted and which will not interfere with or endanger any of the equipment or other property of the Grantee or the use thereof.

In the event the Grantee permanently abandons said right of way, all Grantee's rights hereunder shall cease, except for the right to remove any and all property placed upon said right of way within a reasonable time subsequent to such abandonment.

The provisions hereof shall be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

IN WITNESS WHEREOF, Grantor has executed this instrument this 26 day of June, 1963.

GENERAL INVESTMENT COMPANY

ATTEST:

By Nicholas H. Voorhees

Vice President
Title

Assistant Secretary
Title

STATE OF ARIZONA)
) ss
County of Maricopa)

This instrument was acknowledged before me this 28th day of June, 1963, by Nicholas H. Powell as the Vice President of GENERAL INVESTMENT COMPANY, a corporation.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public

My commission expires:

1148877

DKT 4633 PAGE 71

Exhibit 6

Exhibit 6

PLoS One. 2014; 9(3): e92816. PMCID: PMC3966811
Published online 2014 Mar 26. doi: 10.1371/journal.pone.0092816

The Effect of Medical Marijuana Laws on Crime: Evidence from State Panel Data, 1990-2006

Robert G. Morris,* Michael TenEyck, J. C. Barnes, and Tomislav V. Kovandzic

Joseph A. Keating, Editor

Program in Criminology, University of Texas at Dallas, Richardson, Texas, United States of America
Tulane University School of Public Health and Tropical Medicine, United States of America
* E-mail: morris@utdallas.edu

Competing Interests: The authors have declared that no competing interests exist.

Analyzed the data: RM JCB. Contributed reagents/materials/analysis tools: TK. Wrote the paper: RM MT JCB TK.

Received 2013 Nov 22; Accepted 2014 Feb 25.

Abstract

Go to:

Background

Debate has surrounded the legalization of marijuana for medical purposes for decades. Some have argued medical marijuana legalization (MML) poses a threat to public health and safety, perhaps also affecting crime rates. In recent years, some U.S. states have legalized marijuana for medical purposes, reigniting political and public interest in the impact of marijuana legalization on a range of outcomes.

Methods

Relying on U.S. state panel data, we analyzed the association between state MML and state crime rates for all Part I offenses collected by the FBI.

Findings

Results did not indicate a crime exacerbating effect of MML on any of the Part I offenses. Alternatively, state MML *may* be correlated with a reduction in homicide and assault rates, net of other covariates.

Conclusions

These findings run counter to arguments suggesting the legalization of marijuana for medical purposes poses a danger to public health in terms of exposure to violent crime and property crimes.

Introduction

Go to:

The social ramifications of marijuana legalization have been hotly debated for at least four decades [1]. Despite a long history of marijuana use for medical purposes, policymakers and in some instances, the scientific community, have been quick to note the potential problematic social outcomes of marijuana legalization [2]. In spite of these political discussions, medical marijuana legalization (MML) has occurred in 20 states and the District of Columbia (between 1996 and the writing of this paper) and its recreational use has now been legalized in Colorado and Washington [3]. An interest in the ramifications of these laws has led to an increase in scholarly activity on the topic [4], [5]. The issue addressed in this article is whether MML has the effect of increasing crime. While there are many mechanisms by which MML might affect crime rates, the most obvious is by increasing the number of marijuana users, which may lead to a broader social acceptance of drug using behaviors and drug users [6]. To the extent that marijuana use serves as a "gateway" to harder drugs such as cocaine and heroin, MML could lead to long-term increases in crime as an ever-growing number of illicit drug users engage in serious predatory crimes to support their habits (but see [7]). But even if MML does not lead to a rise in marijuana use (especially among youth), the laws could still stimulate crime as newly opened medical marijuana dispensaries provide criminals with a highly attractive target with their repository of high quality marijuana and customers carrying large amounts of cash (but see [8]). As a member of the California Chiefs of Police Association stated, "A disturbing and continuing trend is the increasing number of home invasion robberies and associated violence resulting in the victimization of those cultivating and possessing marijuana … [D]ispensaries also continue to be targeted based upon the availability of larger quantities of drugs and cash" (see http://californiapolicechiefs.org/wp-content/uploads/2012/02/July_September_2010_Final.pdf). Though anecdotal evidence abounds to support both theses, and a few single-jurisdiction and cross-

sectional studies have examined the MML-crime link (e.g., [9]), no single analysis has assessed the overall consequences of medical marijuana laws on crime rates across the United States. This study seeks to inform the debate by providing a comprehensive evaluation of the effects of state MML on state crime rates.

The Positive Correlation between Marijuana Use and Criminal Behavior

Though the gateway hypothesis applies to the progression of drug-using behaviors, there remains the possibility that marijuana use leads to delinquent or criminal behavior via a similar mechanism. A number of studies have specifically examined the relationship between marijuana use and crime [10], [11], [12], [13], [14]. Early studies compared the amount of crimes committed by juveniles whose urine tested positive for marijuana upon entering a detention center and those committed by individuals who tested negative for marijuana. Dembo and associates [15], [16], for instance, found that youths who tested positive for marijuana had a significantly higher number of referrals to juvenile court for nondrug felonies than those testing negative for marijuana use.

Arseneault and colleagues [17] examined the relationship between marijuana dependence and the risk for violence in a sample of New Zealand adolescents. The authors controlled for gender, socioeconomic status, and many other concurrent disorders and concluded that marijuana dependence was related to a 280 percent increase in the odds of violence. This association was stronger than the individual effects of manic disorder, alcohol dependence, and schizophrenia. In a study using data collected from school-age adolescents in the Netherlands, those who reported marijuana use tended to report more delinquent and aggressive behaviors [18]. This relationship was significant after controlling for variables such as alcohol and tobacco use and the strength of the relationship increased with higher frequency of marijuana use. This study is noteworthy because marijuana use is decriminalized in the Netherlands, thus the relationship is unlikely to be based on the fact that marijuana users have to participate in the illegal market and are therefore at an increased risk for violence. While these studies were cross-sectional and show a correlation between current marijuana use and criminality or violent behaviors, other scholars have examined the link with longitudinal data.

Using multi-wave data, research has shown adolescents who reported marijuana use at age 15 were more likely to report violent involvement at age 19, indicating that marijuana use, particularly during adolescence may impact violent behavior in young adulthood [19]. Similarly, research has shown that frequent marijuana use

during adolescence was a strong predictor of being involved in intimate partner violence [5]. Results revealed that consistent marijuana use during adolescence was related to a 108 percent increase in the likelihood of being involved in intimate partner violence in young adulthood and consistent marijuana use was associated with an 85 percent increase in the odds of being the perpetrator of intimate partner violence, independent of alcohol use.

These studies provide evidence to the notion that marijuana use is at a minimum correlated with an increase in violent or aggressive behaviors. What remains unclear is whether these findings imply a causal link between marijuana use and violence or whether the relationship is driven by an uncontrolled variable(s) (i.e., a spurious correlation). Along these lines, it could be argued that the relationship between violence and marijuana use is primarily due to its illegality and thus would not exist in an environment in which marijuana use, at least medicinally, is legalized.

The Negative or Null Correlation between Marijuana Use and Criminal Behavior

Most researchers who have examined the relationship between marijuana use and crime report that these laws do not have an effect on violent crime [20], [21]. Green and associates [20], for instance, concluded that while marijuana use was related to an increase in drug and property crime, it was not related to an increase in violent crime. Pedersen and Skardhamar [21] also found a relationship between marijuana use and subsequent arrest, although once the authors removed all types of drug charges from the models, the relationship was no longer significant. Results revealed no evidence that marijuana use was related to an increase in later non-drug arrest, such as arrests for violent crimes. The authors argued that the association between marijuana use and crime appears to exist because of its illegality. Thus, if the possession and sale of marijuana was legal the relationship between marijuana and crime might disappear.

It has been argued that medicinal marijuana laws may increase crime because the dispensaries and grow houses provide an opportunity for property crime and violent crime to occur, such as burglary and robbery. Kepple and Freisthler [9] examined the relationship between medical marijuana dispensaries and crime and their results suggested that after controlling for a host of ecological variables, no relationship existed between medicinal marijuana dispensaries and property or violent crime. Additional research has shown that medical marijuana dispensaries may actually reduce crime within the immediate vicinity of the dispensaries [8]. This may be due to the security measures implemented by dispensary owners (i.e., having security

cameras, having a doorman, and having signs requiring identification). Importantly, medical marijuana dispensaries do not appear to increase crime in their surrounding areas.

In sum, research on the relationship between medicinal marijuana and crime is mixed. Studies have shown that states allowing the use of medical marijuana have higher prevalence rates of marijuana use [13], [14], yet other studies have found that legalized medicinal marijuana does not lead to an increase in its overall use [21], [22]. Research has also suggested that marijuana use is associated with an increase in illicit drug use [23], [19] and an increase in crime [17], [19], [16]. Others, however, have revealed that marijuana is not related to additional illicit drug use [22], [7], [17] or crime [8], [20], [9], [21]. Thus, the available evidence is equivocal and in need of a rigorous evaluation of the MML-crime relationship.

Methods

Go to:

Data & Measures

Dependent Variables Data on all seven Part I offenses—homicide, rape, robbery, assault, burglary, larceny, and auto theft—for each state between 1990 and 2006 were obtained from the Federal Bureau of Investigation's Uniform Crime Reporting (UCR) Program, published as *Crime in the United States*. The data were obtained using the "data for analysis" tool on the Bureau of Justice Statistics Web site (http://www.ojp.usdoj.gov/bjs/dtd.htm). All data were gathered for each of the 50 U.S. states across the 17 year time span for a total N=850. Values reflect the rate of each crime per 100,000 residents.

Medical Marijuana Legalization (MML) To determine if and when MML occurred within a state, we searched the official legislative website of each US state. Between 1990 and 2006, the following 11 states legalized marijuana for medical use, with the year the law was passed in parentheses: Alaska (1998), California (1996), Colorado (2000), Hawaii (2000), Maine (1999), Montana (2004), Nevada (2000), Oregon (1998), Rhode Island (2006), Vermont (2004), and Washington (1998). We also ran models based on MML "legislation-effective year" rather than "legislation-passed year" and found no substantive differences in the results. The MML effective dates were also gathered from each State's official legislative website. Only 2 states (Connecticut and Colorado) had an MML effective year different than "passed" year, both being only a 1-year difference. While there are many options in modeling the effects of MML adoption on crime, we opted to use a post-law trend variable.

The trend variable represents the number of years the law has been in effect with a value of zero for all years before the law was passed, a value of 1 for the year the law was passed, and a value of $1+k$, where k = number of years after the initial passage of the law, for all subsequent years. Unlike the traditional "dummy variable" approach (i.e., 0 = no MML law, 1 = MML law), which posits a once-and-for-all impact on crime, the post-law trend variable captures any changes in the linear trend of crime that may be observed over time. If opponents of MML are correct that the laws lead to increased marijuana use by teenagers, many of whom are likely to continue illicit hard drug use throughout their adulthood, one might expect a gradual increase in crime over time. Such an effect would be best captured by the post-law trend variable.

Sociodemographic Control Variables Sociodemographic variables were included in the analysis to aid in controlling for a vast array of other time-varying influences that might be potential confounding factors over the study period. These variables, and their sources, have been described previously [24]. Specifically, they include each state's percent of the civilian labor force unemployed; the total employment rate; percent of the population living below the poverty line; real per-capita income (divided by the Consumer Price Index); the proportion of residents aged 15–24; the proportion of residents aged 25–34, the proportion of residents aged 35–44 years; the per-capita rate of beer consumption [25]; the proportion of residents with at least a bachelor's degree; and the percent of the state's population that lived in a metropolitan area. State-level unemployment data were obtained from the Bureau of Labor Statistics website (www.bls.gov/sae/home). Data on poverty were acquired via the Bureau of the Census website (www.census.gov/hhes/www/poverty). Personal income and real welfare payments data were taken from the Bureau of Economic Analysis website (www.bea.doc.gov/bea/regional/reis). The age variables were obtained directly from the U.S. Bureau of the Census. Data on beer consumption were taken from the Beer Institute website (www.beerinstitute.org). The percent of the population with college degrees or higher and the percent of the population living in a metropolitan area are linear interpolations of decennial census data, as reported in various editions of the *Statistical Abstracts of the United States*.

Additional measures included the number of prison inmates per 100,000 residents and the number of police officers per 100,000 residents. The number of prisoners was measured as the number of prisoners sentenced to more than a year in custody as of December 31 per 100,000 residents and was obtained from the Bureau of Justice Statistic's website (www.ojp.usdoj.gov/bjs). Data on the total number of

police, including civilians, were taken from the Public Employment series prepared by the Bureau of the Census. Louisiana and Mississippi were missing information on this variable for the year 2006, therefore reducing the usable case count by two units. Substantive results were identical when values for this year were imputed with values from the previous year. Summary statistics for these explanatory variables are presented in Table 1.

Table 1

Summary Statistics.

Analysis Plan

To identify the effect of MML on crime, we use a fixed-effects panel design, exploiting the within state variation introduced by the passage of MML in 11 states over the 17 year observation period. The design allows for the assessment of whether states adopting MML experienced changes in the trend of crime by analyzing within state changes in crime rates over time and comparing those changes to the crime rate trends among states that did not pass an MML law. To carry out this analysis, we estimate fixed-effects ordinary least squares regression models, where the natural log of each crime rate variable (i.e., homicide, rape, robbery, assault, burglary, larceny, and auto theft) is the dependent variable. This model directly accounts for dynamic factors that cause crime to vary from state to state, as well as those stable unmeasured factors that differ between states [26], [27]. In addition, we also include "year fixed-effects," which capture any national influences on crime that are not captured in any of the time-varying explanatory variables. Robust standard errors are clustered at the state level to avoid biased standard errors due to the non-independence of data points over time [28]. Thus, the fixed effects models can be expressed algebraically following the convention set forth by Wooldridge [27] as:

$$\log(\ddot{y}ijt) = bi0 + bi1\,M\ddot{M}Ljt + \ldots + bik\ddot{x}jt + \ddot{e}it$$

where:

the subscripts i, j, and t are used to identify the crime rate variable being used as the dependent variable, the 50 states, and time (1990–2006), respectively;
$\log(\ddot{y}ijt)$ = the time-demeaned (see [27]) logged crime rate outcome variable;
$bi0$ = the crime-specific constant term;

$bi\backslash M\ddot{M}Lji$ = the time-demeaned crime-specific average impact of MML on crime rates;

$+ \ldots + bik\ddot{x}ji$ = the time-demeaned crime-specific effect of the various control variables, including year dummies, a linear trend variable, and state fixed effects;

and, $\ddot{e}ii$ = the time-demeaned crime-specific error term.

It is important to note that fixed-effects models are not without limitations. While they are well suited to address the issue at hand and account for unobserved time-invariant factors, they are always vulnerable to time-varying factors that are not accounted for that differ between states with MML and those without. However, we have accounted for the bulk of factors that have been shown associated with state crime rates and our models explain a considerable amount of variation in each outcome. It is also important to acknowledge that fixed-effects models do not account for temporal ordering for time-varying predictors within a given observation period. For example, it is unknown whether states adopted MML after experiencing lower crime rates in a given year(s), however, this is unlikely to be an issue here since policy response to crime rates tend to take time and we account for this via operationalization of MML as an additive effect.

Results

Go to:

Primary Findings

Before consulting the results from the fixed effects regression models, a series of unconditioned crime rates for each offense type were generated and are presented in Figure 1. Note that two crime rate trends are presented in each panel. One trend—the solid line—shows the crime rate, by year, for states that had *not* passed an MML law. Thus, states that eventually did pass an MML law contribute to the solid line up until the year that they passed the MML law. As expected from the overall crime trend during this time period, the solid line reveals that all states experienced a reduction in each of the seven crimes from 1990 to 2006. Important to note is the trend revealed by the dashed line, which shows the crime rate trends for states *after* passing an MML law. With one exception—forcible rape—states passing MML laws experienced reductions in crime and the rate of reduction appears to be steeper for states passing MML laws as compared to others for several crimes such as homicide, robbery, and aggravated assault. The raw number of homicides, robberies, and aggravated assaults also appear to be lower for states

passing MML as compared to other states, especially from 1998–2006. These preliminary results suggest MML may have a crime-reducing effect, but recall that these are unconditional averages, meaning that the impact of the covariates and other factors related to time series trends have not been accounted for in these figures.

Figure 1

Mean State Crime Rates as a Function of Year, by Medical Marijuana Law (MML).

The results of the fixed effects analyses are presented in Table 2. It is important to note that a Hausman test was carried out to determine whether the fixed effects model was preferable over the random effects model; the latter model is more parsimonious and, thus, should be preferred when results do not systematically differ across the two approaches. The results of the Hausman tests (with year fixed effects omitted for both equations because they are inestimable in the random effects model) suggested that the fixed effects model was preferred in each of the seven analyses. For reference, the Hausman χ^2 values were 302.61, 23.64, 102.50, 414.94, 58.87, 34.18, and 31.28 for homicide, rape, robbery, assault, burglary, larceny, and auto theft, respectively.

Table 2

The Impact of Medical Marijuana Laws on Crime Rates.

The key results gleaned from the fixed effects analyses are presented in row 1 of Table 2, which reveals the impact of the MML trend variable on crime rates, while controlling for the other time-varying explanatory variables. Two findings worth noting emerged from the different fixed effects regression analyses. First, the impact of MML on crime was negative or not statistically significant in all but one of the models, suggesting the passage of MML *may* have a dampening effect on certain crimes. The second key finding was that the coefficients capturing the impact of MML on homicide and assault were the only two that emerged as statistically significant. Specifically, the results indicate approximately a 2.4 percent reduction in homicide and assault, respectively, for each additional year the law is in effect.

Because log-linear models were estimated, the coefficient must be transformed according to the following formula to generate percentage changes in crime for a one-unit increase in MML: $e^{(b-1)*100}$ [27]. However, it is important to note that the finding for homicide was less variable (i.e., a lower standard error) as compared to assault. One might argue a Bonferroni correction is necessary given the exploratory nature of the study and the multiple models that were analyzed. Once a Bonferroni correction was carried out (i.e., $\alpha/7$), only the effect of MML on homicide remained statistically significant (.05/7=.007). Perhaps the most important finding in Table 2 is the lack of evidence of any increase in robbery or burglary, which are the type of crimes one might expect to gradually increase over time if the MML-crime thesis was correct. Thus, in the end, MML was not found to have a crime enhancing effect for any of the crime types analyzed.

Sensitivity Analyses

The fixed effects models presented above were subjected to a range of sensitivity tests to determine whether the findings were robust to alternative model specifications. First, and as previously noted, data for the two missing cases were imputed using matched case replacement for Louisiana and Mississippi. Importantly, substantive results were identical when this strategy was carried out. A second sensitivity analysis explored the possibility that the effect of MML on crime rates was non-linear. No evidence emerged to support the hypothesis that MML has a non-linear effect on crime rate trends. Third, a related issue concerns whether the MML effect has *both* a trend effect (shown above) *and* a one-time shock effect. We considered this issue by including the MML trend variable (discussed above) along with a dummy variable coded 0 for years when no MML law was present (by state) and coded 1 in years when an MML law had been passed. The findings were practically identical to those shown above: the MML trend variable was negatively related to homicide ($b=-.02$, $p<.10$) and assault ($b=-.02$, $p<.10$). A fourth sensitivity analysis re-estimated the original models (shown above), by weighting each state proportional to its population size. When these weighted fixed effects models were estimated, the substantive findings were somewhat different than those presented above. Specifically, the effect of MML on homicide rates was no longer statistically significant ($b=-.01$, $p=.30$), MML negatively predicted robbery rates ($b=-.02$, $p<.10$), MML negatively predicted assault rates ($b=-.03$, $p<.01$), and MML *positively* predicted auto theft rates ($b=.03$, $p<.05$). While it is common in the crime policy literature to weight observations by resident population to correct for possible heteroskedasticity, this will be the efficient feasible GLS (generalized least squares)

procedure only if the heteroskedasticity takes a particular form, i.e. variance proportional to the square of the population. In the present study, the unweighted results produce findings that are substantively consistent with the weighted results, although they differ slightly quantitatively. The most likely explanation for this discrepancy is that the weighted results are driven by a few large population states. For this reason, we present the unweighted results as the main results and the weighted results as part of our numerous robustness checks.

Discussion and Conclusion

Go to:

The effects of legalized medical marijuana have been passionately debated in recent years. Empirical research on the direct relationship between medical marijuana laws and crime, however, is scant and the consequences of marijuana use on crime remain unknown. Studies have shown that marijuana use was associated with higher prevalence of subsequent illicit drug use [19] and an increased risk of violence [17]. Yet, other studies have found that once additional factors were controlled for, there was no relationship between marijuana use and later serious drug use [7]. Research has also shown that marijuana use is not related to violent crime when measured at the individual-level [20]. Once drug charges are controlled for, Pedersen and Skardhamar [21] reported that the relationship between marijuana and crime was not significantly different from zero. Unfortunately, no study has examined the effect of legalized medical marijuana on state crime rates across the United States. The current study sought to fill this gap by assessing the effect of legalized medicinal marijuana on the seven Part I UCR offenses. The analysis was the first to look at multiple offenses across multiple states and time periods to explore whether MML impacts state crime rates.

The central finding gleaned from the present study was that MML is not predictive of higher crime rates and *may* be related to reductions in rates of homicide and assault. Interestingly, robbery and burglary rates were unaffected by medicinal marijuana legislation, which runs counter to the claim that dispensaries and grow houses lead to an increase in victimization due to the opportunity structures linked to the amount of drugs and cash that are present. Although, this is in line with prior research suggesting that medical marijuana dispensaries may actually reduce crime in the immediate vicinity [8].

In sum, these findings run counter to arguments suggesting the legalization of marijuana for medical purposes poses a danger to public health in terms of exposure to violent crime and property crimes. To be sure, medical marijuana laws were *not*

found to have a crime exacerbating effect on any of the seven crime types. On the contrary, our findings indicated that MML precedes a reduction in homicide and assault. While it is important to remain cautious when interpreting these findings as evidence that MML *reduces* crime, these results do fall in line with recent evidence [29] and they conform to the longstanding notion that marijuana legalization may lead to a reduction in alcohol use due to individuals substituting marijuana for alcohol [see generally 29, 30]. Given the relationship between alcohol and violent crime [31], it may turn out that substituting marijuana for alcohol leads to minor reductions in violent crimes that can be detected at the state level. That said, it also remains possible that these associations are statistical artifacts (recall that only the homicide effect holds up when a Bonferroni correction is made).

Given that the current results failed to uncover a crime exacerbating effect attributable to MML, it is important to examine the findings with a critical eye. While we report no positive association between MML and any crime type, this does not *prove* MML has no effect on crime (or even that it reduces crime). It may be the case that an omitted variable, or set of variables, has confounded the associations and masked the true positive effect of MML on crime. If this were the case, such a variable would need to be something that was restricted to the states that have passed MML, it would need to have emerged in close temporal proximity to the passage of MML in all of those states (all of which had different dates of passage for the marijuana law), and it would need to be something that decreased crime to such an extent that it "masked" the true positive effect of MML (i.e., it must be something that has an opposite sign effect between MML [e.g., a positive correlation] and crime [e.g., a negative correlation]). Perhaps the more likely explanation of the current findings is that MML laws reflect behaviors and attitudes that have been established in the local communities. If these attitudes and behaviors reflect a more tolerant approach to one another's personal rights, we are unlikely to expect an increase in crime and might even anticipate a slight reduction in personal crimes.

Moreover, the present findings should also be taken in context with the nature of the data at hand. They are based on official arrest records (UCR), which do not account for crimes not reported to the police and do not account for all charges that may underlie an arrest. In any case, this longitudinal assessment of medical marijuana laws on state crime rates suggests that these laws do not appear to have any negative (i.e., crime exacerbating) impact on officially reported criminality during the years in which the laws are in effect, at least when it comes to the types of offending

explored here. It is also important to keep in mind that the UCR data used here did not account for juvenile offending, which may or may not be empirically tethered to MML in some form or another; an assessment of which is beyond the scope of this study.

Funding Statement

Go to:

The authors have no funding or support to report.

References

Go to:

1. Levinthal CF (2008) Drugs, society, and criminal justice (2nd Ed.). Boston: Pearson.

2. American Academy of Pediatrics (2004) Legalization of marijuana: Potential impact on youth. Pediatr 113: 1825–1826 [PubMed]

3. Johnson K, Chebium R (2013) Justice Department won't challenge state marijuana laws. USA Today, Retrieved from: http://www.usatoday.com/story/news/nation/2013/08/29/justice-medical-marijuana-laws/2727605/

4. O'Brien PK (2013) Medical marijuana and social control: Escaping criminalization and embracing medicalization. Deviant Behav 34: 423–443

5. Reingle JM, Staras SAS, Jennings WG, Branchini J, Maldonado-Molina MM (2012) The relationship between marijuana use and intimate partner violence in a nationally representative, longitudinal sample. J Interpers Violence 27: 1562–1578 [PMC free article] [PubMed]

6. Keyes KM, Schulenberg JE, O'Malley PM, Johnston LD, Bachman JG, et al. (2011) The social norms of birth cohorts and adolescent marijuana use in the United States, 1976–2007. Addict 106: 1790–1800 [PMC free article] [PubMed]

7. Cleveland HH, Wiebe RP (2008) Understanding the association between adolescent marijuana use and later serious drug use: Gateway effect of developmental trajectory? Dev Psychopathol 20: 615–632 [PubMed]

8. Freisthler B, Kepple NJ, Sims R, Martin SE (2013) Evaluating medical marijuana dispensary policies: Spatial methods for the study of environmentally-based interventions. Am J Community Psychol 51: 278–288 [PMC free article] [PubMed]

9. Kepple NJ, Freisthler B (2012) Exploring the ecological association between crime and medical marijuana dispensaries. J Stud Alcohol Drugs 73: 523–530 [PMC free article] [PubMed]

10. Harris AWF, Large MM, Redoblado-Hodge A, Nielssen O, Anderson J, et al. (2010) Clinical and cognitive associations with aggression in the first episode of psychosis. Aust N Z J Psychiatry 44: 85–93 [PubMed]

11. Moore TM, Stuart GL (2005) A review of the literature on marijuana and interpersonal violence. Agress Violent Behav 10: 171–192

12. Ostrowsky MK (2011) Does marijuana use lead to aggression and violent behavior? J Drug Educ 41: 369–389 [PubMed]

13. Niveau G, Dang C (2003) Cannabis and violent crime. Med Sci Law 43: 115 –121 [PubMed]

14. Swartout KM, White JW (2010) The relationship between drug use and sexual aggression in men across time. J Interpers Violence 25: 1716–1735 [PubMed]

15. Dembo R, Washburn M, Wish ED, Schmeidler J, Getreu A, et al. (1987) Further examination of the association between heavy marijuana use and crime among youths entering a juvenile detention center. J Psychoactive Drugs 19: 361–373 [PubMed]

16. Dembo R, Walshburn M, Wish E, Yeung H, Getreu A, et al. (1987) Heavy marijuana use and crime among youths entering a juvenile detention center. J Psychoactive Drugs 19: 47–56 [PubMed]

17. Arseneault L, Moffitt TE, Caspi A, Taylor PJ, Silva PA (2000) Mental disorders and violence in a total birth cohort. Arch Gen Psychiatry 57: 979–986 [PubMed]

18. Monshouwer K, Van Dorsselaer S, Verdurmen J, Ter Bogt T, De Graff R, et al. (2006) Cannabis use and mental health in secondary school children. Br J Psychiatry 188: 148–153 [PubMed]

19. Brady SS, Tschann JM, Pasch LA, Flores E, Ozer EJ (2008) Violence involvement, substance use, and sexual activity among Mexican-American and European-American adolescents. J Adolesc Health 43: 285–295 [PMC free article] [PubMed]

20. Green KM, Doherty EE, Stuart EA, Ensminger ME (2010) Does heavy adolescent marijuana use lead to criminal involvement in adulthood? Evidence from a multiwave longitudinal study of urban African Americans. Drug Alcohol Depend 112: 117–125 [PMC free article] [PubMed]

21. Pedersen W, Skardhamar T (2010) Cannabis and crime: Findings from a longitudinal study. Addict 105: 109–118 [PubMed]

22. Bureau of Justice Statistics (2008) Deaths in custody reporting program. Retrieved October 29, 2008 from ojp.usdoj.gov/bjs/dcrp/prisonindex.htm.

23. DeSimone J (1998) Is marijuana a gateway drug? East Econ J 24: 149–164

24. Kovandzic TV, Vieraitis LM, Paquette-Boots D (2009) Does the death penalty save lives? New evidence from state panel data, 1977 to 2006. Criminol Public Policy 8: 803–843

25. Scribner R, Cohen D, Kaplan S, Allen SH (1999) Alcohol availability and homicide in New Orleans: Conceptual considerations for small area analysis of the effect of alcohol outlet density. J Stud Alcohol 60: 310–316 [PubMed]

26. Allison PD (2009) Fixed effects regression models. Thousand Oaks, CA: Sage.

27. Wooldridge JM (2009) Introductory econometrics: A modern approach. Mason, OH: South-Western Cengage Learning

28. Bertrand M, Duflo E, Mullainathan S (2004) How much should we trust differences-in-differences estimates? Q J Econ 119: 249–275

29. Anderson DM, Hansen B, Rees DI (2013). Medical marijuana laws, traffic fatalities, and alcohol consumption. J. of Law Econ: 333–69

30. DiNardo JE, Lemieux T (2001). Alcohol, marijuana, and American youth: The unintended consequences of government regulation. J. Health Econ: 991–1010 [PubMed]

31. Boden JM, Fergusson DM, Horwood LJ (2012). Alcohol misuse and violent behavior: Findings from a 30-year longitudinal study. Drug Alcohol Depen: 135–41 [PubMed]

Exhibit 7

Exhibit 7

Journal of Studies on Alcohol and Drugs
Home | Current Issue | Past Issues

J Stud Alcohol Drugs. 2012 Jul; 73(4): 523–530. PMCID: PMC3364319

Exploring the Ecological Association Between Crime and Medical Marijuana Dispensaries

Nancy J. Kepple, M.S.W.[a,*] and Bridget Freisthler, Ph.D.[a,b]

[a]Department of Social Welfare, University of California, Los Angeles, Luskin School of Public Affairs, Los Angeles, California

[b]Lewis Center Faculty Fellow, University of California, Los Angeles, Luskin School of Public Affairs, Los Angeles, California

*Correspondence may be sent to Nancy J. Kepple at the Department of Social Welfare, University of California, Los Angeles, Luskin School of Public Affairs, 3250 Public Affairs Building, Box 951656, Los Angeles, CA 90095-1656, or via email at: njwilliams@ucla.edu.

Received 2011 Oct 16; Accepted 2012 Jan 28.

Abstract

Go to:

Objective:

Routine activities theory purports that crime occurs in places with a suitable target, motivated offender, and lack of guardianship. Medical marijuana dispensaries may be places that satisfy these conditions, but this has not yet been studied. The current study examined whether the density of medical marijuana dispensaries is associated with crime.

Method:

An ecological, cross-sectional design was used to explore the spatial relationship between density of medical marijuana dispensaries and two types of crime rates (violent crime and property crime) in 95 census tracts in Sacramento, CA, during 2009. Spatial error regression methods were used to determine associations between crime rates and density of medical marijuana dispensaries, controlling for neighborhood characteristics associated with routine activities.

Results:

Violent and property crime rates were positively associated with percentage of commercially zoned areas, percentage of one-person households, and unemployment rate. Higher violent crime rates were associated with concentrated disadvantage. Property crime rates were positively associated with the percentage of population 15–24 years of age. Density of medical marijuana dispensaries was not associated with violent or property crime rates.

Conclusions:

Consistent with previous work, variables measuring routine activities at the ecological level were related to crime. There were no observed cross-sectional associations between the density of medical marijuana dispensaries and either violent or property crime rates in this study. These results suggest that the density of medical marijuana dispensaries may not be associated with crime rates or that other factors, such as measures dispensaries take to reduce crime (i.e., doormen, video cameras), may increase guardianship such that it deters possible motivated offenders.

WITHIN THE PAST 15 YEARS, a new type of drug outlet has developed in the United States that combines place-based distribution with an illicit substance—medical marijuana dispensaries. At present, 17 states and the District of Columbia have passed legislation legitimizing the use of medical marijuana and its distribution (National Organization for the Reform of Marijuana Laws, 2012). Thus, marijuana distribution in the United States is for the purpose of medical use and only recognized bystate-level policies.

Internationally, similar place-based dispensaries have been present since the late 1970s as "coffee houses" or "hash clubs." They are perceived to be a breeding ground for criminal networks, attracting individuals prone to crime and increasing potential for crime around these locations (Asmussen, 2007, 2008; Ministry of Health, Welfare, and Sport, 1995; Møller, 2008). In the United States, the increase in medical marijuana outlets (often referred to as dispensaries or collectives) during the mid to late 2000s has created perceptions that dispensaries support conditions that encourage crime in and around their locations (California Police Chief's Association, 2009). Although the concerns of place-based related crime are consistent across geographic contexts, little is known empirically about medical

marijuana dispensaries (Penick, 2006; Reiman, 2007). In fact, only one study has assessed the ecological effects of dispensaries: Jacobson et al. (2011) observed that crime was higher around medical marijuana dispensaries 10 days after their mandated closures compared with 10 days before the closure. Although contrary to previously discussed perceptions, the results cannot be fully evaluated because this technical report was withdrawn after the authors determined that a systematic review of the study's methodology and conclusions was required.

Routine activity theory of crime

Go to:

Routine activity theory provides a framework to understand how the presence of medical marijuana dispensaries may contribute to criminal activity. According to this theory, crime occurs when three necessary conditions are met: (a) the presence of a motivated offender; (b) a suitable target defined by its value, visibility, access, and/or likelihood of low resistance to crime; and (c) the absence of guardians against crime, such as place managers (i.e., owners and the agents they hire to monitor and regulate behaviors), inadequate security, and/or low levels of informal social control in the surrounding environment (Clarke and Felson, 1993; Cohen and Felson, 1979; Eck and Weisburd, 1995).

Neighborhood demographic and structural characteristics are not constant over space and thus create opportunities where these three conditions may converge in a geographic area that increase the potential for victimization and encourage crime (Brantingham and Brantingham, 1993; Clarke and Felson, 1993). First, demographic neighborhood characteristics capture the concentration of motivated offenders and potential targets. Various studies have observed that the concentration of potential offenders in neighborhood areas, measured by neighborhood economic deprivation (e.g., concentrated poverty and unemployment rate), is positively associated with neighborhood crime rates (Andresen, 2006; Miethe and McDowall, 1993). The concentration of populations identified as suitable targets has also been observed to be associated with neighborhood crime rates. Neighborhood areas with high concentrations of young males (ages 15–24 years) residing in single-adult households and/or disrupted family (or single-parent) households are likely targets because of the increased likelihood that these neighborhoods are composed of populations who socialize outside of the home and have an increased amount of goods per household (Cohen and Felson, 1979; Sampson and Wooldredge, 1987).

Guardianship of a place or geographic area is related to the presence of individuals or systems that can monitor and regulate behavior to protect against crime, such as

place managers, formal authorities (e.g., security guards or police), and/or informal social control provided by individuals within the surrounding environment (e.g., friends or neighbors) (Clarke and Felson, 1993; Cohen and Felson, 1979). Thus, demographic factors can indicate potential guardianship of an area based on informal monitoring and the presence of individuals who may deter crime. For example, a higher percentage of vacant housing units can increase the absence of guardians, such as neighbors and place managers, and thus increase the potential for crime both in and around these vacant locations (Roncek and Maier, 1991; Spelman, 1993). Conversely, high population density may increase the presence of guardians in an area, resulting in the often observed negative association between population density and crime (Andresen, 2006). This additional monitoring of individuals is likely to offset crime expected from the concentration of potential targets and goods within a given amount of space (Cohen et al., 1980).

In addition, structural neighborhood features can contribute to both violent and property crime. Commercially zoned areas are associated with a higher level of street activity and cash flow. These conditions tend to attract crime and/or create opportunities where the three conditions of crime accidentally converge. As a result, there is typically a positive relationship between percentage of a neighborhood area identified as commercially zoned and crime outcomes Brantingham and Brantingham, 1993; Cohen and Felson, 1979; Sampson and Wooldredge, 1987). Roadway features, such as the presence of highway ramps, may also encourage crime in the general area by easing a potential offender's ability for a quick getaway. Neighborhood areas with highway ramps, then, may be viewed as more suitable for crime through increased access (Felson, 1987). Therefore, those neighborhoods composed of demographic and structural factors associated with crime may create conditions in which both the physical location of a business and the surrounding areas are at risk for higher crime incidents (Brantingham and Brantingham, 1993).

Routine activities approach to medical marijuana dispensaries

Go to:

Previous work has established the spatial relationships between crime locations and place (Eck and Weisburd, 1995; Greenbaum and Tita, 2004; Gruenewald et al., 2004; Roncek et al., 1991). Places such as medical marijuana dispensaries provide an opportunity where the conditions for crime outlined by routine activities theory can also converge. However, there have been no peer-reviewed studies that explore whether medical marijuana dispensaries are related to crime.

Applying routine activity theory to medical marijuana dispensaries suggests that dispensaries may uniquely contribute to crime even when other contextual factors associated with crime have been controlled. They have on-site stock and sales of marijuana and are a predominantly cash-based business (California Police Chief's Association, 2009). The centralized location of the goods—marijuana and cash—within the dispensaries makes the location a suitable target for a potential offender who might be motivated to seek out ways to obtain the desirable goods, particularly where security appears to be absent.

Based on the conditions described above, dispensaries can be at risk for property crimes, such as burglary. Employees of the dispensaries can be at risk for violent crimes, such as robbery or assault, because they are gatekeepers to both the marijuana products and the cash at the site. Estimates from the western United States and other countries show that users of medical cannabis are primarily male (i.e., two thirds to three fourths of all users) and White, with a wide range of ages (i.e., late teen years to old age; median age between 30 and 50) (Aggarwal et al., 2009; O'Connell and Bou-Matar, 2007; Ogborne and Smart, 2000; Penick, 2006; Reiman, 2007; Ware et al., 2005). The typical clientele for dispensaries (i.e., older White men) are not associated with being at risk for perpetrating crime (Cottle et al., 2001; Hirschi and Gottfredson, 1983). However, they are at risk for being targets of violent crimes, such as robbery, because they are likely carrying cash on entry and some physical amount of marijuana product on exit. In addition, medical marijuana dispensaries have a diverse clientele, with some who are older, frail, and/or diagnosed with chronic, debilitating conditions (O'Connell and Bou-Matar, 2007; Reiman, 2007; Swift et al., 2005; Ware et al., 2003). These more vulnerable clients may appear to be easier targets for a motivated offender and are at higher risk for victimization (Cohen and Felson, 1979).

Study aims

Go to:

To date, only preliminary quantitative evidence exists for the relationship between these medical marijuana dispensaries and crime. Thus, the current study investigated the relationship of crime rates in Sacramento, CA, during 2009 to medical marijuana dispensaries to better understand their ecological impact. We hypothesized that medical marijuana dispensaries would be associated with higher crime rates, controlling for other aggregate neighborhood measures of routine activities known to contribute to crime.

Go to:

Method

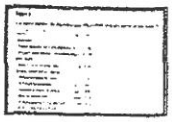
Study design

This study used an ecological, cross-sectional design to explore the spatial relationship between the density of medical marijuana dispensaries and crime rates in the City of Sacramento. California recognized distribution of marijuana through collectives in 2004; however, Sacramento did not implement local regulatory policies until 2010. Thus, data are from 2009, a period that represents the longest time for growth before regulations of medical marijuana dispensaries in Sacramento. The sample for the study included all census tracts with centroids within Sacramento City boundaries ($N = 95$). All data were aggregated to 2000 U.S. Census tract boundaries. Census tracts approximate neighborhood areas with regard to size and composition: (a) average population is 4,000 residents, (b) boundaries align with visible features of the environment, and (c) homogeneous with respect to population characteristics and/or living conditions (U.S. Census Bureau, Geography Division, 2008).

Measures

The dependent variables in the study were violent crime and property crime as measured by police crime incident data obtained from the Sacramento Police Department. Crime incidents were available by crime code and location of incident. Data were recoded into violent crime and property crime categories and geocoded to greater than 99%. Violent crimes were recoded based on the Uniform Crime Reporting definitions, which included homicide, sexual assault, robbery, and aggravated assault. Sexual assaults were excluded from the analysis because address information is confidential to protect the victim; those crimes were not able to be geocoded. Property crimes also were recoded based on the Uniform Crime Reporting definitions, which included burglary, larceny-theft, motor vehicle theft, and arson. For each type of crime category, the number of crime incidents in a census tract was divided by the total population of the tract and multiplied by 1,000 to create the associated crime rate variable. Table 1 provides descriptive statistics for crime rates per census tract. Because of the right-skewed distributions of the dependent variables, violent crime rate and property crime rate were transformed by a natural log. Table 2 provides zero-order correlations between the natural log of each type of crime rate and each continuous independent variable.

Table 1



Descriptive statistics for dependent and independent variables across census tracts in Sacramento, CA (N = 95)

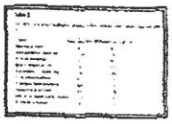


Table 2

Zero-order correlation coefficients of independent variables with violent crime rate and property crime rate (N = 95)

The locations of medical marijuana dispensaries were determined by comparing multiple sources: (a) Sacramento City's listing associated with Ordinance No. 2009-033, *An Ordinance Establishing a Moratorium;* (b) news publications; (c) discussion boards on the Internet; (d) trade publications; and (e) survey of dispensary owners/managers. Locations were verified by having at least three sources document that a dispensary was operating on or by June 16, 2009, which provided a midpoint estimate for locations opened during the year. All outlets were geocoded based on point location to 100%. A total of 40 medical marijuana dispensaries were located within 28 of the 95 census tracts (29.5%) in Sacramento. The density of medical marijuana dispensaries was measured by the number of dispensaries per roadway mile in a census tract; this measure was scaled to density per 10 roadway miles. The aggregation to census tracts provided the best variability of density for the smallest areal unit that approximates a neighborhood area. The number of dispensaries ranged from 0 to 3 outlets per tract with density per tract ranging from 0 to 4.95 dispensaries per 10 roadway miles. Figure 1 shows the location of medical marijuana dispensaries mapped onto an unweighted gradient of violent crime rates and property crime rates per 1,000 population by census tract. Those areas with the highest rate of violent or property crime are not necessarily the areas with the greatest population.

Figure 1

Medical marijuana dispensary locations and neighborhood crime rates per 1,000 population (N = 95): (a) violent crime rate by census tract, (b) property crime rate by census tract

To control for neighborhood population and place characteristics that routine activity theory would suggest contribute to observed crime rates, several control

variables were created and included in the model. The following variables were selected to control for neighborhood contextual factors commonly associated with aggregate patterns of crime: population density (1,000 population per square mile), male-to-female ratio, percentage of population ages 15–24 years, percentage of one-person households, percentage of disrupted family (or single-parent) households, unemployment rate, and percentage of housing units that were vacant. Data for the measures were from the 2009 estimates of population and housing characteristics obtained from GeoLytics Inc. (2009). Geocoding rates for these census measures are, by definition, 100%. Table 1 provides a summary of descriptive statistics for all control variables. Male-to-female ratio and unemployment rate were transformed using the natural log to address right-skewed distributions.

In addition, neighborhood disadvantage was measured by the index of concentration at the extremes representing concentrated poverty (−1.0) to concentrated affluence (1.0) on a continuous scale. The variable was constructed by subtracting the number of poor households from the number of affluent households and dividing the result by the total number of households (Massey, 2001). Poor households were determined by using 2008 poverty guidelines. Any household composed of two or more individuals and with a combined income less than $26,400 (all dollar values are in U.S. dollars) were considered to be below the 200% poverty level. As a result, all households with an income of less than $25,000 were included in the poor household count. Affluent households were determined by any income that was more than two standard deviations above median income, resulting in all households with an income of $100,000 or more being included in the affluent household count.

A categorical variable for the presence of highway onramps was created as a proxy measure for physical characteristics that allowed for quick and easy entry and exit into a census tract. We used a categorical measure because of the limited variability in the number of highway ramps per census tract (i.e., 56 of the 95 census tracts had no highway exits; less than 5 census tracts had more than one highway exit). All roadway segments with the Census Feature Class Code (CFCC) A63 (i.e. access ramp) were selected and then aggregated to the census tract; the variable was coded 0 for no highway ramp present and 1 for highway ramp present. ESRI 2008 Streets for United States and Canada (based on 2003 Tele Atlas Dynamap Transportation Version 5.2 product) was used to identify highway ramps (ESRI, 2008). The geocoding rate for highway ramps was 100%; however, the street file is based on 2003 streets and does not account for development in the 5 years between 2004 and 2009.

Finally, all areas defined as commercial zoning for the City of Sacramento (i.e., C1 = limited commercial; C2 = general commercial; C3 = central business district; SC = shopping center; HC = highway commercial; C4 = heavy commercial; ORMU = office/residential mixed use; EC = employment center; OB = office zone) were selected and were parsed into polygons that aligned with census tract boundaries so square mile area could be calculated. The percentage of commercially zoned area was calculated by dividing the aggregate square mile area of commercial zoning by the total square mile area of the census tract and then multiplying by 100. The shapefile for commercially zoned areas from 2010 was obtained from Sacramento County and the City of Sacramento, Geographic Information Systems Division. Geocoding rates for commercially zoned areas were 100% for areas within Sacramento City boundaries.

Statistical analyses

This study used geospatial methods, which have become standard practice for studying ecological relationships between place and crime (Gruenewald et al., 2006). Area units (e.g., census tracts) located next to each other often share similar characteristics that may bias results because they are highly correlated, a phenomenon called *spatial autocorrelation* (Cliff and Ord, 1973). Spatial techniques address this bias by accounting for the spatial autocorrelation. To test if spatial autocorrelation was an issue for these data, the Univariate Moran's *I,* which is a global measure of spatial autocorrelation, was calculated for the dependent variables (Bailey and Gatrell, 1995). Moran's *I* was statistically significant for violent crime rate ($I = 0.3257$, $p < .05$) and property crime rate ($I = 0.4625$, $p < .05$).

Spatial regression models were used to address spatial autocorrelation observed for the dependent variables. This study used a Rook's connection matrix to identify adjacencies between census tracts using an $n \times n$ (in this case 95×95) matrix, where census tracts that shared a boundary were given a 1 and those that did not, a 0 (Bailey and Gatrell, 1995). One challenge to using this approach with smaller geographic areas, such as census tracts, is that the model assumes all areas have the same population. This assumption results in census tracts with small populations and with large populations being weighted equally. To address this, all variables were weighted by the square root of the census tract population to address issues of heteroscedasticity, providing more weight to census tracts with higher population (Greene, 1993). In addition, the condition index was used to test for collinearity in the geographically weighted regressions; any value above 30 indicates problematic

collinearity issues within the model (Belsley, 1991; Wheeler, 2007). The condition index for the final models was 21.2 (Table 3), which is not indicative of severe multicollinearity. The fit of the model was examined using the likelihood ratio test, which compared the log-likelihood from the full model (i.e., medical marijuana dispensary density variable plus routine activity variables) with that of the restricted model (i.e., medical marijuana dispensary density variable) to determine if the contribution of routine activity variables improved the overall fit of the model (Greene, 1993).

Table 3

Spatial error regression of MMD density on the log of violent crime rate and log of property crime rate by census tract ($N = 95$)

Results

Go to:

Table 3 shows the results of the spatial error regression models for violent and property crime rates with the associated condition index, pseudo-$R2$, and model-fit statistics. Model I for violent crime rates indicated that medical marijuana dispensaries per 10 roadway miles were not significantly related to violent crime rates. When routine activity theory control variables were added in Model II, the density of medical marijuana dispensaries remained not significantly related to violent crime rates. Model II showed that violent crime rates had a significant positive association with percentage of one-person households, unemployment rate, and percentage of commercial zoning when controlling for other variables. As expected, lower population density was associated with higher levels of violent crime. In addition, lower levels of index of concentration at the extremes (or higher levels of concentrated disadvantage) were significantly associated with higher violent crime rates.

For property crime rates, Model I indicated that medical marijuana dispensaries per 10 roadway miles were not significantly related to property crime rates. In Model II, the density of medical marijuana dispensaries remained not statistically significant when routine activity control variables were added to the model. Model II showed a significant positive association with percentage of population ages 15–24 years, percentage of one-person households, unemployment rate, and percentage of commercial zoning when controlling for other variables.

Discussion

Go to:

In sum, the statistically significant variables for the violent crime rate and property crime rate models were consistent with aggregate neighborhood measures reported within the routine activity theory literature (Andresen, 2006; Cohen and Felson, 1979; Sampson and Wooldredge, 1987). Percentage of a census tract that was commercially zoned, percentage of housing units in a census tract that were one-person households, and unemployment rate were positively related to violent and property crime rates. However, no crosssectional associations were observed between the density of medical marijuana dispensaries and violent or property crime rates, controlling for ecological variables traditionally associated with routine activity theory.

These findings suggest two possible conclusions. First, the density of medical marijuana dispensaries may not be associated with neighborhood-level crime rates. For example, dispensaries may be associated with crime but no more than any other facility in a commercially zoned area with conditions that facilitate crime. Alternatively, the relationship between density of medical marijuana dispensaries and crime rates is likely more complex than measured here. The study did not measure on-site security or guardianship at the dispensaries. If medical marijuana dispensaries have strong guardianship, such as security and monitoring systems, routine activity theory would suggest that the three necessary conditions for crime are not met. Place-specific guardianship would decrease the accessibility and increase the risk of being caught, decreasing the suitability of a target.

The findings are based on an ecological, cross-sectional study. As a result, no conclusions can be made about causation. First, the study cannot demonstrate whether increasing density of medical marijuana dispensaries is associated with an increase in crime rates over time and space. At an aggregate level, dispensaries in Sacramento are not associated with crime cross-sectionally; however, the introduction of these dispensaries in these areas may have served to increase crime rates from the prior year. This hypothesis can only be tested by examining the changes in medical marijuana dispensary locations and crime rates over time. Second, the ecological design does not allow individual-level variation to be factored into the models, specifically owners' selection of the location of a dispensary. Future studies should address the issue of endogeneity by obtaining information from dispensary owners on their decision-making processes associated with medical marijuana dispensary locations.

The small sample size of 95 census tracts may have limited the power of the final model. Limited power may have contributed to why variables theorized to affect crime (e.g., percentage of vacant housing, percentage of population ages 15–24 for violent crime rates) were not significant. However, the power was sufficient to establish whether the density of medical marijuana dispensaries would be associated with crime in the univariate models (i.e., Model I).

Other unmeasured ecological factors may also be influencing results. Because of sample size limitations, the current study omitted the locations of illicit drug market activity (Eck, 1995; Gorman et al., 2005; Weisburd and Mazerolle, 2000) and alcohol outlets (Gruenewald et al., 2006; Scribner et al., 1999), both of which are associated with higher crime rates. In addition, dispensaries may belocated in areas that reflect the demographics of their clientele (i.e., older White men). The routine activity literature indicates that areas with these local neighborhood characteristics are not likely to have high crime rates (Cohen and Felson, 1979). Exploration of ecological factors associated with location of dispensaries is essential to better understand the role of neighborhood context related to these findings.

The focus on one mid-sized city in California limits the context to which these findings can be generalized. Future studies need to expand spatial methods of this type to other regions of California, other U.S. states, and international regions where marijuana place-based distribution occurs. In addition, the sample size did not allow for the inclusions of variables, such as interaction of place and population characteristics (e.g., Medical Marijuana Dispensary Density × Commercial Zoning) or spatial lags. Finally, measures of premise-based features and operation procedures may provide a better indication of guardianship and employee vulnerabilities that may be associated with findings.

These findings run contrary to public perceptions (California Police Chief's Association, 2009). The cross-sectional results suggest that dispensaries are not associated with crime rates; however, current media and policy efforts have focused their attention on the place-based regulation of these dispensaries to protect the public against crime (California Police Chief's Association, 2009; City of Los Angeles, 2010; Lopez, 2010). Based on the limited evidence presented by this study, it is unclear if place-based policies will be effective. Future studies should address previously described limitations, such as longitudinal studies, to assess the influence of medical marijuana dispensaries on existing crime rates, to gain a better of understanding of the relationship between medical marijuana dispensaries and

crime. In addition, future studies should explore specific elements that make dispensaries vulnerable or resistant to crime to better guide future policies.

Footnotes

Go to:

Research for and preparation of this manuscript were supported by National Institute on Drug Abuse (NIDA) Grant R01-DA032715, National Institute on Alcohol Abuse and Alcoholism Center Grant P60-AA06282, NIDA Pre-Doctoral Training Grant T32-DA07272-19, and grants from the University of California, Los Angeles Graduate Division.

References

Go to:

Aggarwal SK, Carter GT, Sullivan MD, ZumBrunnen C, Morrill R, Mayer JD. Characteristics of patients with chronic pain accessing treatment with medical cannabis in Washington State. Journal of Opioid Management. 2009;5:257–286. [PubMed]

Andresen MA. A spatial analysis of crime in Vancouver, British Columbia: A synthesis of social disorganization and routine activity theory. Canadian Geographer. 2006;50:487–502.

Asmussen V. Cannabis policy. European Monitoring Centre for Drugs and Drug Addiction. Lisbon, Portugal: 2008. Tightening the ties in Denmark. In A cannabis reader: global issues and local experiences, Monograph series 8, Volume 1 (pp. 157–168) Retrieved from http://www.emcdda.europa.eu/publications/monographs/cannabis.

Asmussen V. Danish cannabis policy in practice: The closing of "Pusher Street" and the cannabis market in Copenhagen. In: Fountain J, Korf DJ, editors. Drugs in society: European perspectives (pp.14–27) New York, NY: Radcliffe; 2007.

Bailey T, Gatrell A. Interactive spatial data (pp. 247–290). Essex. England: Addison Wesley Longman; 1995.

Belsley DA. Conditioning diagnostics: Collinearity and weak data in regression. New York, NY: John Wiley & Sons; 1991.

Brantingham PL, Brantingham PJ. Nodes, paths and edges: Considerations on the complexity of crime and the physical environment. Journal of Environmental Psychology. 1993;13:3–28.

Sacramento CA. California Police Chief's Association. White paper on marijuana dispensaries. 2009. Author. Retrieved from http://www.procon.org/sourcefiles/CAPCAWhitePaperonMarijuanaDiepensaries.pdf.

City of Los Angeles. Los Angeles, CA: Los Angeles City Clerk's Office; 2010. Ordinance No. 181069: Medical marijuana collectives. Retrieved from

http://cityclerk.lacity.org/lacityclerkconnect/index. cfm?fa=ccfi.viewrecord&cfnumber=08-0923.

Clarke RV, Felson M. Routine activity and rationale choice (pp. 1–14) New Brunswick, NJ: Transaction Publishers; 1993.

Cliff AD, Ord JK. Spatial autocorrelation, monographs in spatial environmental systems analysis. London, England: Pion Limited; 1973.

Cohen LE, Felson M. Social change and crime rate trends: A routine activity approach. American Sociological Review. 1979;44:588–608.

Cohen LE, Felson M, Land KC. Property crime rates in the United States: A macrodynamic analysis, 1947–1977; with ex ante forecasts for the mid-1980s. American Journal of Sociology. 1980;86:90–118.

Cottle CC, Lee RJ, Heilbrun K. The prediction of criminal recidivism in juveniles: A meta-analysis. Criminal Justice and Behavior. 2001;28:367–394.

Eck JE. A general model of the geography of illicit retail marketplaces. In: Eck JE, Weisburd D, editors. Crime and place: Crime prevention studies, Volume 4 (pp. 67–93) Washington, DC: Police Executive Research Forum; 1995.

Eck JE, Weisburd D. Crime places in crime theory. In: Eck JE, Weisburd D, editors. Crime and place: Crime prevention studies, Volume 4 (pp. 1–33) Washington, DC: Police Executive Research Forum; 1995.

ESRI. ESRI data and maps 9.3: Streets for United States and Canada [shapefi le] Redlands, CA: Environmental Systems Research Institute; 2008.

Felson M. Routine activities and crime prevention in the developing metropolis. Criminology. 1987;25:911–932.

Estimates 2009 premium [computer program] East Brunswick, NJ: GeoLytics Inc; 2009. GeoLytics.

Gorman DM, Zhu L, Horel S. Drug 'hot-spots', alcohol availability and violence. Drug and Alcohol Review. 2005;24:507–513. [PubMed]

Greenbaum RT, Tita GE. The impact of violence surges on neighbourhood business activity. Urban Studies. 2004;41:2495–2514.

Greene WH. Econometric analysis (2nd ed., pp. 152–153, 499–524) New York, NY: MacMillan; 1993.

Gruenewald PJ, Freisthler B, Remer L, Lascala EA, Treno A. Ecological models of alcohol outlets and violent assaults: Crime potentials and geospatial analysis. Addiction. 2006;101:666–677. [PubMed]

Hirschi T, Gottfredson M. Age and the explanation of crime. American Journal of Sociology. 1983;89:552–584.

Jacobson M, Chang T, Anderson JM, MacDonald J, Bluthenthal RN, Ashwood JS. Regulating medical marijuana dispensaries [Technical Report]. Santa Monica, CA: RAND. (2011, October) Retrieved from http://www.rand.org/pubs/technical_reports/TR987.html.

Lopez R. Police seek suspect in Northridge marijuana clinic robbery. Los Angeles Times. (2010, January 26) Retrieved from http://latimesblogs.latimes.com/lanow/2010/01/northridge-marijuana-clinic-robber.html.

Massey D. The prodigal paradigm returns: Ecology comes back to sociology. In: Booth A, Crouter AC, editors. Does it take a village? Community effects on children, adolescents, and families (pp. 41–47) Mahwah, NJ: Lawrence Erlbaum Associates; 2001.

Miethe TD, McDowall D. Contextual effects in models of criminal victimization. Social Forces. 1993;71:741–759.

Drug policy in the Netherlands: Continuity and change. The Hague, Netherlands: 1995. Ministry of Health, Welfare, & Sport. Author.

Møller K. Regulating cannabis markets in Copenhagen. In: Asmussen V, Bjerge B, Houborg E, editors. Drug policy—History, theory and consequences (pp. 123 –146) Aarhus, Denmark: Aarhus University Press; 2008.

National Organization for the Reform of Marijuana Laws (NORML) Active State Medical Marijuana Programs [Web log post] 2012. Retrieved on January 22, 2012 from: http://norml.org/index. cfm?Group_ID=3391.

O'Connell TJ, Bou-Matar CB. Long term marijuana users seeking medical cannabis in California (2001–2007): Demographics, social characteristics, patterns of cannabis and other drug use of 4117 applicants. Harm Reduction Journal. 2007;4:16. [PMC free article] [PubMed]

Ogborne AC, Smart RG. Cannabis users in the general Canadian population. Substance Use & Misuse. 2000;35:301–311. [PubMed]

Penick A. Cannabis care: Medical marijuana facilities as health service providers (Doctoral dissertation) 2006 Retrieved from ProQuest. (AAT 3228456)

Reiman A. Medical cannabis patients: Patient profiles and health care utilization patterns. Complementary Health Practice Review. 2007;12:31–50.

Roncek DW, Maier PA. Bars, blocks, and crimes revisited: Linking the theory of routine activities to the empiricism of "hot spots.". Criminology. 1991;29:725 –753.

Sampson RJ, Wooldredge JD. Linking the micro- and macrolevel dimensions of lifestyle-routine activity and opportunity models of predatory victimization. Journal of Quantitative Criminology. 1987;3:371–393.

Scribner R, Cohen D, Kaplan S, Allen SH. Alcohol availability and homicide in New Orleans: Conceptual consideration for small area analysis of the effect of alcohol outlet density. Journal of Studies on Alcohol. 1999;60:310–316. [PubMed]

Spelman W. Abandoned buildings: Magnets for crime? Journal of Criminal Justice. 1993;21:481–495.

Swift W, Gates P, Dillon P. Survey of Australians using cannabis for medical purposes. Harm Reduction Journal. 2005;2:18. [PMC free article] [PubMed]

U.S. Census Bureau. Geography Division. Geographic areas reference manual. Washington, DC: 2008. Author. Retrieved from http://www.census.gov/geo/www/cen_tract.html.

Ware MA, Adams H, Guy GW. The medicinal use of cannabis in the UK: Results of a nationwide survey. International Journal of Clinical Practice. 2005;59:291–295. [PubMed]

Ware MA, Doyle CR, Woods R, Lynch ME, Clark AJ. Cannabis use for chronic non-cancer pain: Results of a prospective survey. Pain. 2003;102:211–216. [PubMed]

Weisburd D, Mazerolle LG. Crime and disorder in drug hot spots: Implications for theory and practice in policing. Police Quarterly. 2000;3:331–349.

Wheeler DC. Diagnostic tools and a remedial method for collinearity in geographically weighted regression. Environment and Planning A. 2007;39:2464–2481.